




भारत का राजपत्र

The Gazette of India

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No. 20] NEW DELHI, SATURDAY, MAY 19, 1990 (VAISAKHA 29, 1912)

इस भाग में भिन्न पृष्ठ संख्या दी जाती है जिससे कि यह जलग संकलन के रूप में रखा जा सके
[Separate paging is given to this Part in order that it may be filed as a separate compilation]

भाग III—खण्ड 2
[PART III—SECTION 2]

पेटेंट कार्यालय द्वारा जारी की गई पेटेंटों और डिजाइनों से सम्बन्धित अधिसूचनाएं और नोटिस
[Notifications and Notices issued by the Patent Office relating to Patents and Designs]

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PATENTS AND DESIGNS

Calcutta, the 19th May 1990

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Telegraphic address "PATENTOFIS".

Patent Office, (Head Office),
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5th, 6th and 7th Floor,
234/4, Acharya Jagadish Bose Road,
Calcutta-700 020

Rest of India.

Telegraphic address "PATENTS".

All applications, notices, statements or other documents
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पेटेंट कार्यालय

एकत्र तथा अभिकल्प

कलकत्ता, दिनांक 19 मई 1990

पेटेंट कार्यालय के कार्यालयों के पते एवं क्षेत्राधिकार

पेटेंट कार्यालय का प्रधान कार्यालय कलकत्ता में अवस्थित है तथा बम्बई, विल्ली एवं मद्रास में इसके शाखा कार्यालय हैं, जिनके प्रादेशिक क्षेत्राधिकार जिन के आधार पर निम्न रूप में प्रदर्शित हैं :—

पेटेंट कार्यालय शाखा,

टोर्डी हस्टेट,

तीसरा तल, लोअर परले (पश्चिम),

बम्बई-400 013.

गुजरात, महाराष्ट्र तथा मध्य प्रदेश राज्य क्षेत्र एवं संघ शासित क्षेत्र गोवा, दमन तथा दिय एवं दादरा और नगर हवेली ।

तार पता—“पेटेंटोफिस” ।

पेटेंट कार्यालय शाखा,

एकक सं. 401 से 405, तीसरा तल,

नगरपालिका बाजार भवन,

सरस्वती मार्ग, करोल बाग,

नई दिल्ली-110 005.

हरियाणा, हिमाचल प्रदेश, जम्मू तथा कश्मीर, राजा, राजस्थान तथा उत्तर प्रदेश राज्य क्षेत्री एवं संघ शासित क्षेत्र चंडीगढ़ तथा विल्ली ।

तार पता—“पेटेंटोफिस” ।

पेटेंट कार्यालय शाखा,

61, बालासाह रोड,

मद्रास-600 002.

आंध्र प्रदेश, कर्नाटक, केरल, तामिलनाडु राज्य क्षेत्र

एवं संघ शासित क्षेत्र पाण्डिचेरी,

लक्षद्वीप, मिनीकाय तथा

एमिनिदिवि बचीप ।

तार पता—“पेटेंटोफिस” ।

पेटेंट कार्यालय (प्रधान कार्यालय),

निजाम पैलेस, विपत्तीय बहुतलीय कार्यालय भवन,

5, 6 तथा 7वां तल,

234/4, आचार्य जगदीश बोस रोड,

कलकत्ता-700 020.

भारत का अवशेष क्षेत्र ।

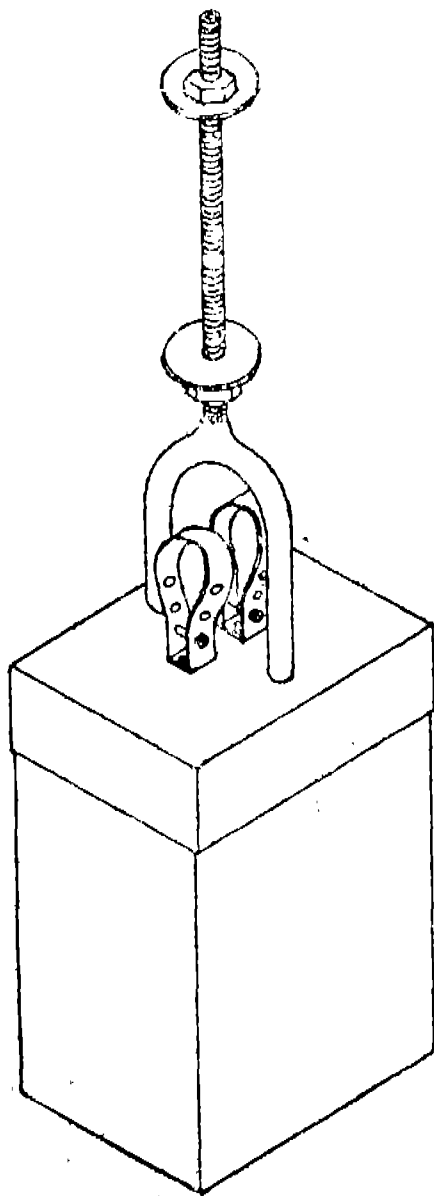
तार पता—“पेटेंट्स” ।

पेटेंट अधिनियम, 1970 या पेटेंट नियम, 1972 में अपेक्षित सभी आवेदन पत्र, सूचनाएं, विवरण या अन्य प्रलेख पेटेंट कार्यालय के केवल उपयुक्त कार्यालय में ही प्राप्त किए जायेंगे ।

शुल्क :—शुल्कों की अदायगी या तो नकद की जायेगी अथवा उपयुक्त कार्यालय में नियंत्रक को भुगतान योग्य धनादेश अथवा आक आदेश या जहाँ उपयुक्त कार्यालय अस्थित है; उस स्थान के अनुसूचित बैंक से नियंत्रक को भुगतान योग्य बैंक ड्राफ्ट अथवा बैंक द्वारा की जा सकती है ।

CORRIGENDUM

In the "GAZETTE OF INDIA" (Part III, Section-2) dated 6th January, 1990, in respect of Patent Application No. 165744 (347/Cal/86) there should be figure No. 1 instead of figure No. 3 of divisional Case No. 580/Cal/89, figure 1 is enclosed herewith.



REGISTRATION OF PATENT AGENT

The following persons have been registered at Patent Agents :

1. Shri Tushar N. Vyas, "Shradhha",
Nootan Society, Salatwada, Vadodara,
Baroda-390 001.
2. Shri Debjit Gupta, C/o Mr. J. B. Sen,
C-1/12, Safdarjung Development Area,
New Delhi-110 016.

3. Shri P. C. Kurian, "Rosemere",
18, Harrington Road, Chetpet,
Madras-600 031.

4. Shri S. N. Kalra,
H-32, Kalkaji,
New Delhi-110 019.

APPLICATION FOR PATENTS FILED AT THE HEAD OFFICE 234/4, ACHARYA JAGADISH BOSE ROAD, CALCUTTA-20

The dates shown in the crescent brackets are the dates claimed Under Section 135, of the Patents Act, 1970.

The 9th April, 1990

290/Cal/90. Sunirmal Chakladar. Improvements in or relating to activator assembly.

291/Cal/90. Sunirmal Chakladar. Improvements in or relating to gyrator device.

292/Cal/90. Atochem North America, Inc. Photochemical preparation of 3-(organothio) aldehydes.

293/Cal/90. Kingsley Corporation (P) Ltd. Reversible ball screw/racer nut assembly (non stop).

294/Cal/90. Kingsley Corporation (P) Ltd. Shower systems.

295/Cal/90. Kingsley Corporation (P) Ltd. Reversible ball screw/racer nut assembly.

296/Cal/90. Societe De Diffusion Et Recherches Techniques Et Financieres Sa. Surface stabilisation process for soils.

297/Cal/90. The University of Melbourne. Improved surgical instrument.

[Conventional date 7th April, 1989, Australia (No. PJ 3578)].

The 11th April, 1990

298/Cal/90. S.S.T. Solid State Technologies S.r.l. Catalytic oxidation and reduction converter for internal combustion engine exhaust gases.

299/Cal/90. Oxi Electric Industry Co. Ltd. Analog-digital hybrid integrated circuit.
(Divisional date 2nd March, 1987).

300/Cal/90. Westinghouse Electric Corporation. Improvements in or relating to method and apparatus for operating a combined cycle power plant having a defective deaerator.

The 12th April, 1990

301/Cal/90. Didier-Werke Ag. Burner for a hot-blast stove.

302/Cal/90. Dr. Werner Stahl. Method for operating a pusher centrifuge.

303/Cal/90. Hoechst Aktiengesellschaft. Process for the preparation of alkyl nitrobenzoates.

304/Cal/90. Flogatec Limited. Improvements in metal pouring apparatus.

[Convention date 19th April, 1989]
U.K. No. 89/08873.

The 16th April, 1990

305/Cal/90. (1) Du Pont Canada Inc. (2) Valspar Inc. Epoxy/polyolefin coating process.

[Convention date 18th April, 1989].
U.K. No. 89/08684.

306/Cal/90. Reid P. Allain & Robert B. Kennedy. Method and apparatus for processing shrimp.

307/Cal/90. Jednotne Zmedelske Druzstvo. Method and arrangement for diagnostics of friction systems of motors.

308/Cal/90. Chang Chung-Hsing. Adjustable spanner.

The 17th April, 1990

309/Cal/90. E.I. Du Pont De Nemours And Company. Improvements in interlacing apparatus.

310/Cal/90. E.I. Du Pont De Nemours And Company. Solid imaging system.

311/Cal/90. Hitachi Ltd. Car body of railway rolling stock, and method for fabricating car body.

312/Cal/90. Saarettick Stoff-Fatol G.M.B.H. Preparation of novel substituted 2, 4-diamino-5-benzyl-pyrimidines for use as modi-cements with an antimicrobial activity.
(Divisional date 21st July, 1987).

313/Cal/90. Merck Patent Gesellschaft Mit Beschränkter Haftung. Process for the preparation of coloured platifetshaped pigments containing iron oxide.
(Divisional date 18th March, 1987).

314/Cal/90. Wisconsin Alumni Research Foundation. Method of exterminating rodents and other vertebrate pests.

[Convention date 12th September, 1989].
U.K. No. S. No. 611, 146.

315/Cal/90. Gould Inc. Protecting conductive foil and procedure for protecting an electrodeposited metallic foil during further processing.

ALTERATION

166488 : Anti-dated to 8th February, 1983.

(167/Del/1986)

166520 : Antidated to 1st October, 1984.

(173/Del/1987)

(1)

An Opposition entered by M/s. MDS SWITCHGEAR PVT. LTD. (formerly known as M/s. MORARJI DORMAN SMITH PVT. LTD.) to the grant of a Patent on Application No. 150604 made by Sri Siddharth Balsari & Mrs. Shella Balsari as notified in Part III, Section 2 of the Gazette of India dated the 4th June, 1983 has been dismissed and a Patent has been ordered to be sealed on the application.

(2)

An opposition entered by M/s. MDS SWITCHGEAR PVT. LTD. (formerly known as M/s. MORARJI DORMAN SWITCH PVT. LTD.) to the grant of a Patent on Application No. 150605 made by Sri Siddharth Narendra Balsari and Mrs. Sheela Balsari as notified in Part III, Section 2 of the Gazette of India dated the 4th June, 1983 has been allowed and the grant of a Patent on application refused.

PATENTS SEALED

149193	165131	165222	165224	165225	165230	165241
165243	165248	165272	165273	165281	165291	165292
165293	165299	165322	165323	165324	165326	165332
165335	165337	165343	165344	165345	165346	165347
165348	165355	165356	165358	165362	165363	165364
165365	165366	165368	165369	165370	165420.	

CAL - 23

DEL - 14

BOM - 3

MAS - 1.

AMENDMENT PROCEEDINGS UNDER SECTION 57

The amendments proposed by Westinghouse Electric Corporation in respect of application for Patent No. 163377 as advertised in Part III, Section 2 of the Gazette of India dated the 9th September 1989, have been allowed.

CHEMICAL LIST NO. III

COMMERCIAL WORKING OF PATENTED INVENTIONS

The following patents in the field of Chemical Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under section 146(2) of the Patents Act, 1970 in respect of calendar year 1988 generally on account of want of request for licences to work the patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a licence for the purpose.

Patent No.	Date of Patent	Name & Address of the Patentee	Title of the Invention
1	2	3	4
155992	18-5-1982	A.H. Robins Company Incorporated, 1407 Cummings Drive, Richmond Virginia 23220, U.S.A.	A process for preparing N'(arylthioalkyl), N,(aminoalkyl) ureas.
156479	18-5-1982	Do.	A process of preparing N-(aryloxyalkyl)-N-(aminoalkyl) ureas and thioureas.
150767	29-12-1978	Do.	A method for the production of ethanol.
152343	29-1-1980	Alfa-Laval AG, Post Faak, S-14700 Tumba, Sweden.	A method for producing ethanol by fermentation.
146531	19-10-1976	Aluminium Pechiney, 28 Rue de Bonnel, 69003, Lyon, France.	Purification of solutions circulating in the Bayer cycle for the alkali treatment of bauxites by a Barium compound.
152281	11-2-1980	Do.	Process for converting hydrargillite into Boehmite.
158680	22-6-1983	Do.	Process for the production of an aluminium trihydroxide of large granulometry.
155103	8-4-1981	American Can Co., American Lane, Greenwich, Connecticut, 06830, USA.	A multilayer polymeric laminate with drying agent therein.
157118	17-11-1981	Do.	A polymeric laminate having solid layers and method for manufacturing the same.
159631	28-12-1982	Do.	Method for the production of a laminated web.
143118	10-12-1975	Arbrook, Inc. 2500, Arbrook Boulevard, Arlington, Texas, USA.	A disinfectant agent.
151805	6-5-1980	Asahi Kasei Kogyo Kabushiki Kaisha, 2-6, Dojima-hama, 1, Chome, Kita-ku, Osaka, Japan.	Method for producing carboxylic esters.
152793	5-6-1980	Do.	Fluorinated cation exchange membrane and process for preparing the same.
153146	12-12-1980	Do.	Separation of rare earth metals.
153451	1-12-1980	Do.	Process for producing fluorinated cation exchange membrane.
154418	1-12-1980	Do.	Process for preparing novel fluorinated cation exchange membrane.
154593	11-11-1980	Do.	An improved process for producing a viscose rayon Filament yarn and viscose rayon filament yarn thereby produced.
156691	23-12-1981	Do.	A process for the separation of elements by chromatography.
160816	30-6-1983	Do.	Process for the production of polyhexamethylene adipamide fibers.

1	2	3	4
145251	27-5-1976	Asahi Glass Co. Ltd., No. 1-2- Marunouchi 2-chome, Chiyodaku, Tokyo, Japan.	Process for producing ammonium chloride.
158128	31-3-1983	Do.	An improved process for recovering ammonia from Ammonium chloride.
149600	21-1-1980	Ashok Ranjan Das Gupta, C/o. Eastern Carbons, Sneh-Milan, Telephone, Exchange Road, Dhanbad-826001, Bihar.	Process for producing special quality low ash metallurgical coke.
153648	13-1-1981	Battelle Development Corporation 505 King Avenue, Columbus, Ohio 43201, USA.	A method of producing a reaction gas having a low content of nitrogen oxides and sulfur dioxide from the combustion of hydrocarbons in a multi-solid fluidized bed having a lower dense fluidized bed.
157117	1-10-1981	Beloit Corporation, Beloit-Wisconsin 53511, USA.	Method of producing a fiber pulp having improved capacity at a high yield from bagasi.
158222	13-8-1984	Biogen N.V. 15, Peter Maal, Willemstad, Curaco, Netherlands, Antilles.	Process for producing pharmaceutically acceptable compositions effective against Hepatitis B. viral infections.
146578	15-7-1977	Dr. BECK & Co. AG. 2000 Hamburg 28, Grossmannstrasse, 105, Federal Republic of Germany.	Process for producing a directly tinnable wire.
153014	6-11-1980	Bethlehem steel corporation, Bethlehem, Pennsylvania 18016, USA.	A method of producing a metallic coated ferrous base product.
153015	6-11-1980	Do.	A method of producing a thermally treated metallic coated ferrous base product.
154256	15-12-1980	Do.	A process for making a ductile composite metal product.
150163	28-9-1978	Chemie Linz AG. St. Peter. Strabe 25, A-4021, Linz.	Process for the preparation of anhydrous aluminium fluoride.
155028	10-10-1980	Chemie Linz AG. St. Peter. Strasse 25, 4020, Linz, Austria.	A raw meal composition for use in production of cement and sulphuric acid and a process for preparing said composition.
160950	27-3-1984	Do.	Process for the preparation of an isocyanic acid ammonia gas mixture having a low cyanuric acid content, and an apparatus for carrying out the process.
157073	25-6-1982	Chicopee, 317 George Street, New Brunswick, New Jersey 08903, USA.	An absorbent thermal bonded non-woven fabric and a process for preparing the same.
157194	25-6-1982	Do.	A thermal bonded non-woven fabric composed of polyester/polyethylene conjugate fibres and adsorbent product thereof.
159421	29-7-1982	Do.	Process for producing non-woven fabrics.
151346	23-8-1978	Chlorine Engineers Corpn. Ltd., 2-5 Kasumigaseki, 3-chome-Chiyoda-ku, Tokyo, Japan.	Process for purifying aqueous solution of alkali metal halides for electrolysis.
148118	22-3-1978	Ciba-Geigy AG, Klybeckstrasse 141, 4002 Basle, Switzerland.	Process for bleaching textiles.
161674	28-11-1983	Do.	Process for the preparation of bromoanthraquinones.
154764	15-10-1980	CIL INC. 630 Dorchester Blvd. West, Montreal, Quebec. Canada.	Apparatus for treating waste mixed liquor and method for treatment of activated sludge waste
160073	4-10-1983	CIL INC. & AECI LTD, Do.	An emulsion explosive composition and a process for producing the same.

1	2	3	4
161334	15-9-1983	Corning Glass works, Goring, New York, N.Y. 14831, United States of America.	A process for the production of a glass or ceramic article.
161670	15-9-1983	Do.	A process for producing organo-metallic complexes.
149540	26-3-1979	CPC International Inc., International Plaza, Englewood, Cliffs, New Jersey 07632, U.S.A.	A process for producing an immobilized glucose isomerase.
154879	21-3-1980	Davy McKee (London), Limited, 250 Euston Road, London NW1, 2PO, England.	Process for the production of a sulphur free Butene-1 rich stream.
155261	8-8-1980	Degussa AG, Frankfurt/Main 6450 Hanau 1, Postfach, F.R.G.	Silane/Filler preparations, a process for their production.
155262	8-8-1980	Do.	Vulcanisable rubber mixture based on halogen-free rubbers, a process for vulcanisation of these rubber mixtures.
155430	5-6-1982	Degussa AG, Hanau, Rodenbacher, Chaussee, West Germany.	Process for obtaining 3-cyanopyridine.
155641	26-11-1981	Degussa AG, 9 Weisstranenstrasse, Frankfurt/Main, F.R.G.	A process for preparing improved animal feed by supplementing industrially produced mixed feed stock with methionine.
155674	10-9-1981	Do.	A process for the production of 2-amino-3-carbethoxyamino-6 (pfluore-benzylamino)-pyridine-maleate and medicinal composition including same.
160110	25-8-1983	Degussa AG, Weissfrauenstrasse 6000, Frankfurt (Main), F.R.G.	Process and apparatus for producing carbon black.
160848	30-7-1983	Do.	An improved method for heat treating steel in an inert salt bath.
161201	31-8-1983	Do.	Improved method of preparing direct soldered electrical contact material.
16155	26-10-1983	Do.	A continuous co-current process for carrying out catalytic hydrogenation with hydrogen or a hydrogen containing gas for the production of hydrogen peroxide by the so-called anthraquinone process.
161671	31-12-1983	Do.	A process for the production of regenerants for carburizing salt baths.
15257	18-12-1980	Denki Kagaku Kogyo Kabushiki Kaisha, 4-1 Yuraku-cho, 1-chome, chiyodaku, Tokyo, Japan.	Improvement in or relating to a method for production of carbon black.
14441	7-8-1976	DR. C. OTTO & COMP, GmbH, 463, Bochum West Germany.	A Method for the production of coke using a battery of coke using a battery of coke ovens with a regenerative change of draught.
152657	30-6-1980	Do.	A method of manufacture of coke.
15538	12-2-1981	Do.	A process for preparing quenched coke from hot coke and for simultaneously producing water gas by using sensible heat of hot gas.
142433	0-12-1976	Edward Kooplman, 4424 Bergamo Drive Encino, California 91316, USA.	Process for upgrading lignitic type coal as a fuel.
14362	8-10-1975	E.I. Du Pont De Nemours & Co., Wilmington, Delaware, USA.	Chloroalkali electrolysis cell employing ethylene diamine modified membrane.
144216	9-5-1975	Do.	An oriented filament of polyester and a method of making same.

1	2	3	4
150598	25-2-1980	E.I. Du Pont De Nemours & Co., Wilmington, Delaware, USA	Process for producing rutile TiO_2 .
153701	22-4-1981	Do.	Water removal in nitration of aromatic hydrocarbons.
157596	9-8-1978	Do.	An inorganic groutable material for use in anchoring a bolt in a hole.
158705	23-9-1983	Do.	A crosslinkable foamable composition.
159328	22-7-1983	Do.	Process for preparing a polyester antistatic agent.
160224	20-6-1984	Do.	A continuous process for fluorinating haloalkanes containing at least one non-fluorine halogen atom.
145355	7-5-1976	Eisenwerk-Gesellschaft Maximilianshutte mbH 8458, Sulzbach Rosenberg, West Germany.	Method and apparatus for continuous gasification of solid and/or fluid carbon containing and/or hydrocarbon containing substances in molten iron in a reaction vessels.
146362	7-5-1976	Do.	Method and apparatus for continuous gasification of solid and/or fluid carbon containing and/or hydrocarbon containing substances in molten iron in a reaction vessel.
150145	4-5-1978	Do.	An improved process for the production of steel in a converter using higher proportions of solid scrap.
144819	26-12-1975	Ethicon Inc, Somerville, New Jersey, USA.	An improved surgical suture and method of preparing same.
151798	30-10-1979	Do.	Process for preparing elastomeric surgical sutures comprising segmented copolyether/esters.
157409	10-11-1981	Do.	A process for preparing drawn and highly oriented thermoplastic surgical filaments.
157660	22-7-1982	Do.	Process for producing radiation sterilizable polymeric materials.
158149	24-1-1984	Do.	A process for preparing a paste for haemostasis and temporary bridging of defects in cases of bone trauma.
161052	25-10-1983	Do.	Process for preparing absorbable hemostatic composition.
161669	22-7-1983	Do.	Composite sutures of Silk and hydrophobic thermoplastic elastomers and process for preparing same.
162103	27-9-1983	Do.	A sterile surgical mono-filament suture.
155943	9-3-1977	Exxon Research and Engineering company, 1900 Linden Avenue, Linden, New Jersey 07036, USA.	Improved solvent recovery process for N-methyl-2-pyrrolidone in hydrocarbons exchange.
156247	29-7-1982	Fidia S.P.A. VIA, Ponte Della Fabbrica 3-A, 35031, Abano-Terme (Padova), Italy.	A method for preparing inner ester ganglioside derivatives.
156298	29-7-1982	Do.	Process for preparing organic amide compounds derived from nitrogenous lipids.
157739	29-7-1982	Do.	A method for preparation inner ester ganglioside derivatives.

1	2	3	4
159327	21-7-1983	F.L. Smidth & Co. A/S, 77, Vigerslev Alle, DK-2500, Valby, Copenhagen, Denmark.	Method and apparatus for calcining pulverulent raw material.
147255	5-10-1977	FMC Corporation 2000 Market Street, Philadelphia, Pennsylvania 19103, USA.	A process for obtaining hydrogen sulfide free steam from geothermal steam or industrial gas streams containing hydrogen sulfide and water vapor.
157741	25-1-1982	Do.	A process for the purification of spent steam in a geothermal power plant.
159474	28-1-1983	Do.	Process for preparation of 2, 3-dihydro-2-2 dimethyl-7-hydroxybenzofuran.
160747	10-10-1984	Do.	Process for producing alkali metal cyanates.
150013	14-6-1978	General Electric Company 1, River Road, Schenectady 5, New York, USA.	Process for making a sintered polycrystalline cubic boron nitride compact.
150315	13-10-1978	Do.	Process for preparing an integral composite of a polycrystalline diamond body and silicon carbide or silicon nitride substrate.
150647	19-9-1978	Do.	A process for preparing polycrystalline diamond body.
152258	11-9-1979	Do.	A process for producing a polycrystalline body of a predetermined shape.
152702	27-12-1979	Do.	A process for producing an integral composite of polycrystalline diamond and/or cubic boron nitride body phase and substrate phase.
152876	2-5-1980	Do.	Production of cubic boron nitride from powdered hexagonal boron nitride.
153075	9-4-1980	Do.	Process for preparing a polycrystalline diamond body.
153720	22-7-1980	Do.	An improved process for preparing a compact.
157518	30-8-1982	Do.	Polycrystalline diamond compact and an improved process for making the same.
157594	27-5-1982	Do.	Improved process for making diamond and cubic boron nitride compacts.
157760	27-1-1982	Do.	Process for improving the plating characteristics of Boron rich cubic Boron nitride.
159232	27-5-1982	Do.	Improved metal bonded diamond agglomerated abrasive.
159536	23-3-1983	Do.	Improved process for making a sintered high strength polycrystalline abrasive compact.
157770	24-3-1982	Hirosi Ishizuka, 19-2, Ebara 6-chome, Shinagawa-ku, Tokyo, Japan.	Improvements in a method and an apparatus for producing titanium metal from titanium tetrachloride.
161259	24-3-1982	Do.	Improvements in a method and an apparatus for producing titanium metal from titanium tetrachloride.
161119	28-1-1984	Hitachi Ltd. 5-1 Maruzouchi 1-chome, Chiyoda-ku, Tokyo, Japan.	Ladle refining process and apparatus.
143365	18-6-1975	Hoechst Ag. 6230 Frankfurt/Main 80, F.R.G.	Process for the preparation of water soluble monoazo dyestuffs.
143374	24-10-1975	Do.	Process for the reactive dyeing and printings of fibrous materials containing hydroxy groups.

1	2	3	4
143734	2-4-1975	Hoechst A.G. 6330 Eranstrasse/Main 80, F.R.G.	Liquid aqueous dyeing preparation of reactive dyes.
143889	11-11-1975	Do.	A process for the manufacture of polymer mixture for making intermediate sheeting for laminated glass.
143982	17-11-1975	Do.	Liquid preparation of reactive dyestuffs.
144220	27-4-1976	Do.	Process for the preparation of 5-acetoacetyl 2, 5-dimethoxy-4-chloroanilide.
144344	28-1-1976	Do.	An improved process for the preparation of water soluble azo dyestuffs.
144389	28-1-1976	Do.	A process for the preparation of liquid aqueous compositions of fibre reactive azo dyestuffs.
144449	7-5-1976	Do.	Process for the preparation of stable monoazo dyestuffs.
144514	28-5-1976	Do.	Process for the preparation of stable modification of a disazo dyestuff.
144534	27-4-1976	Do.	Process for preparing-1 (n-β cyanethylamine) 3-acylamino-benzenes.
144645	23-7-1976	Do.	Process for the preparation of water-soluble copper complex compounds.
144979	1-7-1976	Do.	Liquid composition soft, reactive dyes.
146167	18-11-1977	Do.	Process for the preparation of water soluble dyestuffs.
146212	3-6-1977	Do.	A process for preparing stabilized red phosphorus.
146325	7-12-1977	Do.	A water free solid water soluble dyeing compositions.
146933	15-9-1977	Do.	Process for modifying mixtures of azodyestuffs unstable under dyeing conditions.
147048	3-12-1977	Do.	Process for making stabilized red phosphorus.
148129	27-7-1977	Do.	Improved process for the manufacture of β-sulphate ethyl-sulphonyl amino phenol compounds.
148322	27-7-1977	Do.	Improved process for the production of an organic dyestuffs containing 1, 2, 3, or 4 β-sulphate ethyl sulphonyl groups.
148409	7-4-1978	Do.	Process for the preparation of abrasion resistant non-dusting and water-soluble dyestuff particles in a fluidized bed.
148986	17-5-1978	Do.	Process for the continuous manufacture of 3-nitro 4-acetyl amino-toluene and corresponding apparatus.
149614	9-8-1978	Do.	Process for the preparation of novel disperse azo dyestuffs.
149992	15-9-1978	Do.	Process for preparing a finely divided dioxazine pigment.
150012	12-6-1978	Do.	A process for the preparation of azo pigment.
150125	8-12-1978	Do.	Process for the manufacture of a copper cobalt or chromium complex compound of a monoazo compound.

1	2	3	4
150149	13-7-1978	Hoechst Ag. 6230 Frankfurt/Main 80, Federal Republic of Germany.	Process for the preparation of polyvinyl butyral having improved properties.
150238	4-2-1980	Do.	Process for the preparation of 5-Nitrobenzimidazolone-(2).
150312	14-8-1978	Do.	Process for the manufacture of fatty acid nitriles and glycerol from glycerides, especially from natural fats and soils.
150365	26-10-1978	Do.	Process for the manufacture of water soluble dyestuffs.
150366	26-10-1978	Do.	Process for the preparation of water soluble azo dyestuffs.
150367	26-10-1978	Do.	Process for the preparation of water-soluble dyestuffs.
150368	26-10-1978	Do.	Process for the preparation of water soluble dyestuffs.
150542	3-10-1978	Do.	Process for the preparation of water-soluble phthalocyanine compounds.
150592	21-12-1978	Do.	Process for the preparation of 5-(2/-hydroxy-3/Naphthoylamino)-Benzimidazolone-(2).
150948	14-2-1979	Do.	A process for the manufacture of a new water-soluble dyestuffs.
150949	28-5-1979	Do.	Process for the preparation of water-soluble phthalocyanine dyestuffs.
150967	17-3-1979	Do.	Process for the preparation of red phosphorus stabilized against oxidation.
151048	22-3-1979	Do.	Improvements in a process for the continuous dyeing of flat textiles structures made of cellulosic fibers and of their mixtures with synthetic fibers.
151785	12-6-1979	Do.	An improved process for continuous diazotization of amine.
152341	10-1-1980	Do.	A composition of a disperse dyestuff.
152346	17-3-1980	Do.	Process for the separation of 2-hydroxy-naphthalene-3-carboxylic acid from the reaction mixtures of alkali metal salts of 2-hydroxy naphthalene and carbon dioxide.
152496	3-11-1980	Do.	A process for the manufacture of copper complex formazan compounds.
152725	12-10-1979	Do.	Continuous production of azo pigments.
152786	14-12-1979	Do.	A process for the preparation of monoazo pigment which will have recrystallization resistant properties.
152897	24-10-1980	Do.	A pulverulent or liquid dyestuff composition.
152978	29-6-1981	Do.	Process for the preparation of water-soluble azo compounds.
152991	14-2-1979	Do.	A process for the manufacture of new water-soluble dyestuffs.
153342	23-12-1980	Do.	Process for the manufacture of desulfurizing agents based on calcium oxide containing calcium carbide for crude iron or steel melts.
153408	3-11-1980	Do.	Process for the preparation of copper formazan compounds.

1	2	3	4
153476	1-12-1980	Hoechst Ag. 6230 Frankfurt/Main 80, Federal Republic of Germany.	Process for the preparation of water soluble azo dyestuff compounds.
153490	21-12-1978	Do.	Process for the preparation of 5-(2/-hydroxy-3/-naphthoylimino)-Benzimidazolone-(2)
153496	3-11-1980	Do.	Process for the manufacture of stabilized pulverulent red phosphorus.
153853	16-5-1981	Do.	Process for dyeing and printing fiber materials containing or consisting of natural cellulose fibers, regenerated cellulose fibers, natural polyamide fibres and/or synthetic polyamide fibres.
154195	26-10-1978	Do.	Process for the manufacture of water-soluble dyestuffs.
154434	1-7-1981	Do.	Process for the preparation of water-soluble phthalocyanine compounds containing a sulfonyl cyanamide group.
154589	28-4-1980	Do.	Process for the production of liquid chlorine.
154643	19-8-1980	Do.	Process for preparing water soluble phthalocyanine compounds.
154872	4-3-1981	Do.	Process for the preparation of 1-(β-sulfatoethylsulfonyl phenyl), pyrazolone by esterification.
154873	4-3-1981	Do.	Process for the preparation of Sulfatoethylsulfonyl compounds.
154874	4-3-1981	Do.	Process for the preparation of aminobenzanilide-sulfuric acid half-ester compounds.
154951	3-6-1981	Do.	Composition containing colorants and esterified oxalkylates of aromatic hydroxy compounds.
154958	19-8-1980	Do.	A process for providing a fibre material with a finished (improved) property.
155265	23-12-1980	Do.	A process for manufacturing a desulfurizing agent.
155374	31-8-1981	Do.	Process for preparing water soluble disazo compounds.
155494	2-7-1981	Do.	Process for the manufacture of water-soluble azo compound.
155772	26-4-1982	Do.	Process for preparing anthraquinone compounds.
156063	8-12-1982	Do.	Process for making 1, 2-dichloroethane.
156075	27-7-1981	Do.	Process for the preparation water soluble fibre reactive compounds containing A-B chloroethyl sulfonylmethyl benzoyl amide radical.
156278	18-10-1982	Do.	Process for preparing water soluble mono-azo-pyridone compounds.
156400	1-12-1980	Do.	Process for the preparation of water soluble azo dyestuffs compound.
156403	16-5-1981	Do.	Process for the preparation of water soluble metal free or heavy metal complex compound.
156477	30-10-1981	Do.	Process for the preparation of water-soluble disazo compounds.

1	2	3	4
156505	18-12-1982	Heechst AG, 6230, Frankfurt/Main 80, F.R.G.	Process for removing molybdenum from aqueous manganese salt solutions.
156610	5-12-1982	Do.	Process for the preparation of anionic surface-active compounds based on oxyalkylated naphthol novolacs.
156867	14-10-1981	Do.	Process for preparing dust free pigment granules of high tinctorial strength.
156869	30-10-1981	Do.	A process for the preparation of water-soluble monoazo compounds.
156933	20-11-1982	Do.	Process for making 1, 2-dichloro-ethane.
156958	21-9-1982	Do.	Process for making 1, 2-dichloroethene.
156989	31-3-1982	Do.	Process for the preparation of disazo compounds.
156990	31-5-1982	Do.	A process for preparing water soluble monoazo compounds.
157075	19-7-1982	Do.	Process and device for making alkali metal phosphates by spraying alkali metal phosphate solutions or suspensions.
157123	14-6-1982	Do.	A process for the preparation of a polymerization catalyst.
157124	14-6-1982	Do.	A process for the preparation of a polymerization catalyst.
157126	1-7-1982	Do.	Process for preparing copper complex monoazo compounds.
157238	1-7-1981	Do.	A process for the preparation of water-soluble phthalocyanine compounds containing a sulfonyl cyanpamide group.
157300	19-7-1982	Do.	Process for the preparation of water soluble disazo compounds and new Bis (aminophenoxy)-ethane compounds having fiber-reactive groups as the tetrazo compounds.
157311	1-9-1982	Do.	Process for preparing water soluble disazo compounds.
157428	12-8-1982	Do.	A process for the preparation of water soluble monoazo compounds.
157455	5-5-1983	Do.	Process for preparing water soluble azo compound.
157459	7-4-1982	Do.	Process for removing molybdenum from aqueous salt solutions especially manganese salt solutions.
157470	16-5-1981	Do.	Process for the manufacture of water soluble phthalocyanine dyestuff.
157495	14-5-1982	Do.	Process for preparing water-soluble disazo compounds.
157496	13-8-1982	Do.	Process for preparing water-soluble disazo compounds.
157497	21-1-1983	Do.	Process for preparing water-soluble disazo compounds.
157663	21-2-1983	Do.	A process for the continuous dyeing of fabric webs.

1	2	3	4
157668	16-5-1981	Hoechst Ag. 6230 Frankfurt/Main 20, Federal Republic of Germany.	Process for the manufacture of water-soluble phthalocyanine dyestuffs.
157685	19-8-1980	Do.	Process for preparing water soluble phthalocyanine compounds.
157814	30-4-1982	Do.	Process for the manufacture of monoazo compounds.
157904	17-1-1983	Do.	Process for the preparation of water-soluble copper complex disazo compounds.
157990	16-5-1981	Do.	Process for the manufacture of water-soluble phthalocyanine dyestuffs.
158147	16-5-1981		Process for the manufacture of a metal free or heavy metal complex dyestuff containing a sulfo group.
158237	15-10-1982	Do.	Process for preparing water-soluble azo compounds.
158270	2-5-1983	Do.	A process for preparing water soluble disazo compounds.
158274	1-7-1982	Do.	Process for the preparation of copper complex monoazo compounds.
158322	14-2-1983	Do.	Process for the preparation of water-soluble disazo dyestuffs.
158501	5-11-1982	Do.	Process for preparing water-soluble disazo compound, process for their preparation.
158546	27-7-1981	Do.	Process for the preparation of water-soluble fibre reactive dyestuff containing a β -chloroethylsulphonylmethyl benzoyl amino radical.
158547	27-7-1981	Do.	Process for the preparation of water soluble, heavy-metal complex dyestuffs.
158644	2-5-1983	Do.	Process for preparing water soluble disazo dyestuff.
158854	23-9-1982	Do.	Process for the preparation of water-soluble free reactive phthalocyanine compounds.
158924	23-9-1982	Do.	Process for the preparation of fiber-reactive phthalocyanine compounds.
158926	23-9-1982	Do.	A process for the preparation of water-soluble fibre reactive phthalocyanine compounds.
159104	10-11-1983	Do.	Process for making 1, 2-dichloroethane.
159176	5-2-1982	Do.	Process for the preparation of amionic surface-active compounds based on oxyalkylated naphthol Novolacs.
159503	17-3-1982	Do.	A solid dyestuff composition of water soluble Fibre-reactive dyestuffs and condensation products.
159629	10-11-1982	Do.	Process for preparing a water-soluble symmetrical or asymmetrical 1:2 chromium complex of 1:2 cobalt complex or 1:2 chromium and 1:2 mixed complex azo compound.
159917	7-5-1984	Do.	Single vessel process for preparing ring-substituted N-alkyl-anilines.

1	2	3	4
160049	1-7-1982	Hoechst Ag. 6230 Frankfurt/Main 80 Federal Republic of Germany.	Process for the preparation of copper complex monoazo compounds.
160055	15-10-1982	Do.	A process for the preparation of water soluble pyridone-azo compounds.
160849	8-8-1983	Do.	A process for preparing a mixture of 1 : 2 cobalt complex and 1 : 2 chromium azo dye-stuffs.
161050	30-4-1982	Do.	Process for the manufacture of monoazo compounds.
161179	5-2-1982	Do.	Process for the preparation of anionic surface-active compounds based on oxyalkylated naphthol Novolacs.
161576	5-12-1983	Do.	Process for preparing watersoluble monoazo compounds.
161817	16-7-1984	Do.	Process for the preparation of bicyclic copper complex formazan compounds.
161970	28-3-1985	Do.	A process for separating sodium sulfate from aqueous dyestuff solutions.
162616	12-8-1982	Do.	A process for preparing of water-soluble azo compounds.
145110	28-6-1976	I.C.I. Australia Ltd., 1, Nicholson Street, Melbourne, Victoria 3001, Australia and Diamond shamrock Corporation, 110 Superior avenue, cleveland, ohio, 44114, U.S.A.	Process of making an amphoteric polymeric composition.
152389	20-6-1979	I.C.I. Australia Limited, 1, Nicholson Street, Melbourne, Victoria, 3001, Australia.	An improved process for the manufacture of ammonium nitrate prills or granules.
144322	19-4-1975	ICI Ltd., Imperial Chemical House, Mill Bank, London SW1P, England.	Process for the manufacture of calcium sulphate alpha-hemihydrate.
146613	26-7-1977	Do.	A method of preparing a hardened calcium sulphate hemihydrate plaster.
147300	26-7-1977	Do.	A set-inhibited aqueous calcium sulphate hemihydrate plaster slurry composition.
153504	19-12-1979	Do.	A process for the oxidation of a substituted aromatic compound.
154310	13-6-1980	Do.	A process for the preparation of a cementitious product.
154758	30-9-1980	Do.	Process and apparatus for the mixing of fluids and solids.
155133	13-10-1980	Do.	A process for producing hydrocarbons.
156777	11-6-1981	Do.	A process for producing a gas containing hydrogen.
154435	21-12-1982	Imperial Chemical Industries Plc., (ICI Plc), Imperial Chemical House, Millbank London SW1P 3JF, England.	A method for preparing an aqueous concentrated emetic herbicidal composition.
155666	27-3-1981	Do.	A process for producing a cement product.
156031	1-5-1981	Do.	A process for the production of olefins.
156032	5-5-1981	Do.	A process for the production of methanol.
156903	26-8-1981	Do.	A process for producing one or more carbon compounds from a carbonaceous feedstock.

1	2	3	4
157911	9-3-1982	Imperial Chemical Industries Plc., (ICI Plc), Imperial Chemical House, Millbank London SW1P 3JE England.	Process for reacting carbon monoxide with steam.
158479	4-12-1981	Do.	A process for production of a cementitious product.
158868	1-10-1981	Do.	A process for the production of ammonia.
158970	19-3-1982	Do.	A process for the preparation of quinoline derivatives.
159188	5-4-1983	Do.	Process for the production of ammonia.
159347	6-6-1983	Do.	A process for the manufacture of coloured intagliated article.
159868	30-9-1983	Do.	An emulsion explosive composition and a process for producing the same.
159963	3-6-1983	Do.	A mouldable composition.
160146	13-7-1983	Do.	Emulsion explosive composition and a process for producing the same.
141324	5-5-1976	Indian Explosives Limited 34, Chowringhee, Calcutta-700 071, West Bengal, India.	Cap-sensitive dry blasting agent compositions and method of preparing the same.
144922	12-5-1976	Do.	Sensitised dry blasting compositions and a method for preparing the same.
147983	29-6-1978	Do.	A process for the preparation of a stabilize hydroxyalkyl nitrate liquor.
150036	26-11-1979	Do.	Dry blasting explosive compositions having increased initiation sensitivity and method for the preparation thereof.
150613	21-1-1980	Do.	Process for the preparation of an improved sensitising liquor adopted for use with cap- sensitive small diameter slurried explosive composition.
154196	21-1-1980	Do.	Improved cap-sensitive small diameter slurried explosive compositions and method for the production thereof.
155185	12-8-1982	Do.	An improved water-in-oil emulsion explosive composition and a method of preparing the same.
157795	1-10-1983	Do.	Improved water-in-oil emulsion explosive com- position sensitive to a No. 6 detonator even when prepared under low shear low speed mix- ing conditions and method for production of such compositions.
160798	12-10-1981	Do.	Improved water-in-oil emulsion explosive com- position and method of manufacture thereof.
160982	25-2-1984	Do.	Novel and safe explosive compositions suitable for use in underground coal mines.
162404	26-7-1985	Do.	Novel slurried explosive compositions and method for their manufacture.
153693	11-12-1981	Indian Jute Industries Research Association 17, Taratola Road, Calcutta-700 088, India.	A process for the treatment of jute fabrics to render them fire retardant when used as a barrier fabric.
154108	21-3-1981	I.S.C. Smelting Ltd., 6 St. James's square, London SW1Y, 4LD, England.	Method of manufacturing zinc, with improved step of charging zinc smelting blast furnaces.
156789	4-3-1983	Do.	Roasting of mixed sulphide ores or concen- trates.

1	2	3	4
159576	6-9-1983	Janseon Pharmaceutica N.V. Tumhoutsebaan 30, B 2340, Beerse, Belgium.	A process for the preparation of novel [(bis aryl) methylene]-1 piperidinyl pyrimidones.
160024	17-9-1984	Do,	A process for isolating levamisole from tetramisole.
143258	12-10-1976	Johnson & Johnson, 501, George Street, New Brunswick, New Jersey, U.S.A.	A conditioning and cleaning shampoo composition non-irritating to eyes.
144597	10-5-1977	Do,	Mixed block polymer adhesive.
145165	8-10-1976	Do,	Low irritation detergent composition.
146069	10-5-1977	Do,	Tacky adhesive composition.
149889	24-7-1978	Do,	Water based pressure sensitive adhesive and process for making the same.
150596	26-3-1979	Do,	Low irritating liquid detergent composition.
150992	10-8-1978	Do,	A process for producing adhesive tapes and sheets from thermoplastic elastomeric materials.
151132	1-5-1979	Do,	Low irritating detergent and cleansing composition.
151133	1-5-1979	Do,	Process of preparing novel betaine derivatives.
151359	10-8-1978	Do,	Pressure sensitive adhesive composition.
155486	12-2-1982	Do,	A pressure sensitive adhesive composition.
155957	19-8-1982	Do,	A process for preparing a composition for preventing dental enamel caries.
156987	16-11-1981	Do,	A direct extension process for preparing a coated substrate.
161893	24-1-1984	Do,	A process for preparing a detergent composition.
161966	12-6-1984	Do,	Process for preparing pressure sensitive adhesive composition as an aqueous emulsion.
157936	2-7-1983	Korea Advanced Institute of Science & Technology, 207 43, Cheong Rang Ri-Dong, Dong-dai Moon-ku, Seoul, South Korea.	Process for the production of (\pm) 4-oxo-1, 2, 3, 6, 7, 11 b-Hexahydro-4H-Pyrazino (2, 1-a) isoquinoline derivatives.
159586	2-7-1983	Do,	Process for the production of (+) 4-oxo-1, 2, 3, 6, 7, 11 b-Hexahydro-4H-pyrazino (2, 1-a) isoquinoline derivatives.
151009	26-9-1979	Korf Engineering GmbH, Neusserstrasse 111, 4000, Dusseldorf 1, F.R.G.	Process and apparatus for producing liquid crude iron and reduction gas.
158544	24-10-1983	Do,	Process and installation for the direct production of sponge iron particles and liquid crude iron from iron ore in lump form.
152728	1-2-1980	Kraftwerk Union AG, Mulheim (Ruhr), Wiesenstr. 35, F.R.G.	Method for the gasification of carbonaceous material and the reduction of metallic ores

Chemical List No. IV

COMMERCIAL WORKING OF PATENTED INVENTIONS

The following patents in the field of chemical Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under Section 146 (2) of the Patents Act, 1970 in respect of calendar year 1988 generally on account of want of request for licences to work the patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a License for the purpose.

Patent No.	Date of Patent	Name & Address of the patentee	Title of the invention
1	2	3	4
151149	20-2-1979	L' Air Liquide Societe Anonyme Pour L'Etude Et L'Exploitation Des Procèdes Georges Claude 75, Quai Orsay-75007, Paris France.	Apparatus and method of hydrogen enrichment of a purge gas in ammonia. production plan
155786	6-4-1981	Do.	Improvements in or relating to processes of and apparatus for the production of ammonia synthesis gas.
158484	18-5-1982	Do.	Process and apparatus for the production of the fuel gas by the underground gasification of coal.
158843	18-11-1982	Lipha [Lyonnaise Ind. Pharmaceutique 34, rue saint Romain-69008, Lyon France.	A Process for preparation of [oxo-4-4H(1)-benzopyran (8-yl) alkanolic acid derivatives.
158942	18-11-1982	Do.	A process for the preparation of Haloalkyl 8-4H (1) benzopyran-4-ones.
163166	30-3-1985	Do.	A process for preparing derivatives of hydroxy-4-2H-1, Benzothiopyran-2-one.
155858	20-9-1978	London Laboratories Limited, 15 Lunar Drive, Woodbridge, Connecticut 06525, U.S.A.	A method of preparing an explosion inhibited multiple-component composition for use in electroless deposition of silver.
142860	20-12-1975	Magnesium Elektron Ltd., cf Lunn's Lane, Slifton, Junction, Swinton, Monchester, England.	A method of making magnesium base alloy.
152252	30-5-1979	Do.	A method of making magnesium alloys.
157529	25-3-1982	Do.	A method of making a magnesium alloys.
161395	28-12-1983	Man Maschinenfabrik Augsburg-Nurnberg AG, Bahnhofstrasse 66, 4200 Oberhausen 11, F.R.G.	Process for production of synthesis gas and equipment for implementation of the process.
156467	7-12-1982	Meiji Seika Kaisha Ltd., 4-16, Kyobashi 2-chome, chuo-ku, Tokyo. Japan.	Process for the production of 1-oxadethiacephem derivatives.
156651	8-7-1983	Do.	Process for the production of 1-oxadethiadecephalosporin compound.
159071	22-7-1983	Do.	Process for the preparation of new 1-oxa-1-dethiacephalosporin derivatives.
160873	22-7-1983	Do.	Process for the preparation of new 1-oxa-1-dethiacephalosporin derivatives.
143802	31-5-1976	Metallgesellschaft AG, 16 Frankfurt A.M., Reuterweg 14, West Germany.	Process of separating solid granular metallurgical products and their precursors on a plurality of linearly vibrating screens.

1	2	3	4
143905	2-4-1975	Metallgesellschaft AG. 16 Frankfurt A.M. Reuterweg, West Germany.	Process for the direct reduction of iron oxide containing materials in a rotary kiln.
144673	25-8-1976	Do.	Method of carrying out exothermic process.
144686	31-1-1977	Do.	Improvements in or relating to a process of directly reducing iron containing oxide materials to sponge iron.
145951	4-10-1977	Do.	Process for regenerating water-containing methanol or other water containing highly volatile organic solvent from gases.
146890	13-10-1977	Do.	Process of regenerating laden absorbents which become available when hydrocarbon containing gases are purified.
149817	5-4-1979	Do.	Steel making process.
149993	20-9-1978	Metallgesellschaft AG. Reuterweg 14. West Germany.	Process of directly reducing iron oxide containing materials.
150952	12-6-1980	Do.	Process of heat-treating pellets.
150990	19-5-1960	Do.	Process of directly reducing iron oxide containing materials in a rotary kiln.
151853	6-11-1979	Do.	Process of producing hydrogen fluoride.
152825	26-11-1980	Do.	A process for obtaining H ₂ S, COS, and mercaptans free gas from gases containing the same by absorption in an absorbent solution.
152949	17-6-1981	Metallgesellschaft AG, 16 Frankfurt A.M. Reuterweg, West Germany.	Process of simultaneously producing fuel gas and process heat from carbonaceous materials.
156437	7-1-1982	Do.	Process of producing cement clinker.
156915	16-1-1982	Metallgesellschaft AG. D-600 Frankfurt A.M. Main 1, West Germany.	Process of producing cement clinker.
156935	21-12-1982	Do.	Improvements in or relating to a process of removing pollutants from exhaust gases.
157655	18-5-1983	Do.	Process of regenerating absorbent solutions for sulfur-containing gases.
157799	5-5-1983	Do.	Process of economically producing sulfuric acid and oleum.
157903	11-1-1983	Do.	Process of desulfurizing gases with an amine containing absorbent solution.
158379	22-10-1983	Do.	Process of producing liquid carbon containing iron.
158419	18-6-1982	Do.	A Process of producing sponge iron by a direct reduction of iron oxide containing materials.
158582	9-2-1984	Do.	Process for the direct reduction of iron oxide containing sintered material to sponge iron in a rotary kiln.
158594	18-6-1982	Do.	Process of producing sponge iron by a direct reduction of iron oxide containing material in a rotary kiln.
158987	25-3-1983	Do.	Process of making steel by melting sponge iron in an electric arc furnace.
159125	25-6-1984	Do.	Process of producing aluminium fluoride.

1	2	3	4
159570	22-7-1983	Metallgesellschaft AG, D-600 Frankfurt A.M. Main 1, West Germany.	Continuous process for producing pig iron containing 1 to 3% carbon.
160853	17-12-1983	Do.	Process of after burning and purifying process exhaust gases.
161245	25-7-1984	Do.	Process of preparing hard-burnt iron ore pellets on a travelling grate.
150339	21-11-1978	Metallurgical Development Bahamas Bldg. West Bay Street, Nassau, Bahamas.	Method of smelting zinc in blast furnace.
152128	16-5-1979	Do.	Perometallurgical smelting of an oxidic charge containing lead & copper.
147336	11-1-1978	Midrex International B.V. Wilfried Strasse 12,8032 Zurich, Switzerland.	Method and apparatus for reducing particulate iron oxide to metallic iron with solid reductant.
152255	14-8-1979	Do.	Method for the direct reduction of iron using gas from coal.
155080	14-8-1981	Do.	Method and apparatus for the direct reduction of iron in a shaft furnace using gas from coal.
160813	1-6-1983	Do.	Method of generating a reducing gas.
151406	7-3-1980	Mitsubishi Gas Chemical Co., Inc. 5-2 Marunouchi 2-chome, Chiyoda-ku, Tokyo, Japan.	Sodium hydrosulfate bleaching composition.
151948	13-5-1980	Mitsui Petrochemical Industries Ltd., 1-5-3- Chome Kasumigaseki-Chiyoda-ku Tokyo, Japan.	Process for producing olefin polymers or copolymers.
142429	23-10-1975	Mitsui Toatsu Chemicals Incorporated No.2-5 Kasumigaseki 3-chome chiyoda-ku, Tokyo, Japan.	Process for recovering ammonia and carbon dioxide from water vapour generated in concentrating an aqueous urea solution.
149929	26-10-1978	Do.	Improved process for preparing organic isocyanates.
151860	13-12-1980	Mitsui Toatsu Chemicals & Toyo Engineering Corporation, 2-5 Kasumigaseki, 3-Chome, Chiyoda-ku Tokyo, Japan.	Improvement in or relating to a process for synthesizing urea.
151891	13-8-1979	Mitsui Toatsu Chemicals Inc., 2-5, 3-Chome, Kasumigaseki, Chiyoda-ku, Tokyo, Japan.	Process for producing alkenyl phenol and or its polymer.
151914	25-9-1980	Mitsui Toatsu Chemicals & Toyo Engineering Corporation, 2-5 Kasumigase, 3-Chome Chiyoda-ku, Tokyo, Japan.	A process for synthesizing urea.
151962	25-10-1980	Do.	Improved method of manufacturing rubber modified styrenes resins.
152042	13-8-1979	Do.	Process for preparing isopropenyl phenol.
153897	6-3-1981	Do.	Method of recovering unreacted materials in urea synthesis process.
154210	21-5-1981	Mitsui Toatsu Chemicals Inc., 2-5-3-Chome, Kasumigaseki, Chiyoda-ku, Tokyo, Japan	Improvement in a process for the preparation of a catalyst system for polymerization of 1-olefins.
154422	1-12-1982	Do.	Process for preparing mononitro-chlorobenzene.
156283	21-8-1981	Mitsui Toatsu Chemicals Inc. and Toyo Engineering corporation, No. 2-5- Kasumi- gaseki 3-Chome, chiyoda-ku, Tokyo, Japan.	Process for synthesizing urea.

1	2	3	4
166483	17-2-1983	Mitsui Toatsu Chemicals Inc., 2-5-3-Chome, Kasumigaseki, Chiyoda-ku, Tokyo, Japan.	Process for preparing of 3, 3, -diamino diphenylsulfones.
156660	23-11-1981	Do.	Process for producing rubber modified styrene resins.
156928	23-2-1982	Do.	An improved process for continuously preparing an organic isocyanate.
157031	17-5-1983	Do.	A process for preparing an aromatic alkane derivative.
157879	28-7-1983	Do.	Method for the purification of propylene polymers.
158315	15-6-1982	Do.	A synergistic solvent composition for washing high molecular substances stuck on the interior of a production apparatus or molding apparatus.
159099	19-10-1983	Do.	Process for producing 3-phenoxy-benzyl 2-(4-alkoxyphenyl)-2-Methylpropyl ethers.
159439	26-9-1983	Do.	A monomeric vinyl chloride stripping tower adapted to remove monomeric vinyl chloride from a suspension or emulsion of a vinyl chloride resin
143844	14-3-1975	Monsanto Company, 800 North Lindbergh, Boulevard, St. Louis, Missouri 637177 USA.	Treated fiber and process for producing the same
144377	20-7-1976	Do.	Process of making thermoplastics elastomeric composition.
150497	8-11-1978	Do.	A process for preparing thermoplastic composition.
150552	2-3-1979	Do.	A process of forming nitrodiaryl-amine by condensation of nitro-halorene and formyl derivative of a primary aromatic amine with alkali metal hydroxide.
150612	23-10-1978	Do.	The proces for making nitro-diarylaminines.
150736	1-11-1978	Do.	A process for the preparation of nitro diaryl-amine.
150804	4-1-1979	Do.	Process for making an amide of formic acid.
150937	3-3-1979	Do.	An improved process for the preparation of nitrodiarylaminines.
151020	1-11-1978	Do.	A process for the preparation of nitrodiarylaminines.
155268	4-1-1979	Do.	Process for preparing nitrodiarylamine.
155993	8-6-1982	Do.	Improvements in a process for the production of cyclohexylamine.
156432	12-3-1982	Do.	Process for catalytically hydrocracking a hydrocarbonaceous feed.
156863	18-10-1982	Do.	A process for inhibiting premature vulcanization of a vulcanizable rubber composition.
157128	21-7-1982	Do.	A process for encapsulating water immiscible material within a shell wall of polyurea.
157351	11-3-1982	Do.	A process for catalytically hydrocracking a hydrocarbonaceous feed.

1	2	3	4
159074	10-8-1982	Monsanto Company, 800 North Lindbergh, Boulevard, St. Louis, Missonri 63177 U.S.A.	An improved vulcanizable rubber composition.
159092	22-8-1983	Do.	Process for the preparation of thermoplastic elastomers.
159531	17-1-1983	Do.	Process for producing paraphenylerediamine mixtures.
150737	2-3-1979	National Research Development Corporation, 66—74 Victoria Street, London SW1, England.	A method for the separation of a gas from a fluid comprising said gas.
156875	14-1-1982	Neste Oy, Keilaniemi, 02150, Espoo 15, Finland.	Method of producing alkali soluble cellulose carbamate.
158268	19-3-1983	Do.	A process for producing cellulose fibers optionally containing carbamate groups.
159236	1-1-1983	Do.	A process for producing cellulose carbamate.
159530	1-1-1983	Do.	Process for precipitating cellulose carbamate from an aqueous alkali solution.
159663	29-11-1983	Do.	Improved process for dissolving cellulose carbamate.
161836	23-10-1984	Do.	Process for manufacturing cellulose carbamate fibres or films.
161858	11-3-1985	Do.	Process for manufacturing cellulose carbamate
155164	23-2-1981	Nippon Kōkan Kabushiki Kaisha, 1-2, 1-Chome, Marunouchi, Chiyoda-Ku, Tokyo, Japan.	Composite sinter of silicon nitride/boron nitride and method for manufacturing thereof.
158178	21-7-1982	Do.	Method for the production of ferrochromium.
152086	12-5-1981	Nippon Zōen Co. Ltd., of 6-1, 2-Chome, Marunouchi, Chiyoda-Ku, Tokyo, Japan.	Improved process for separating conjugated diolefin hydrocarbons from a hydrocarbon mixture.
153409	5-12-1980	Do.	Method for inhibiting polymerization of conjugated dienes in a process for separating conjugated dienes from a hydrocarbon mixture.
155678	9-12-1980	Do.	Process for extracting distillation.
157555	7-10-1982	Do.	A process for producing a reactor for preparing vinyl chloride polymer.
154774	27-2-1982	Nirlon Synthetic Fibres & Chemicals Ltd., Nirlon House, 254-B, Dr. Amle Besant Road, Worli, Bombay-400 025.	An improved process for the preparation of terephthalic diamide.
161317	16-2-1985	Do.	An improved process for the preparation of N, N/-dichloro terepythalic diamide.
152485	8-5-1979	Nissan Chemical Industries Ltd., 7-1, 3-Kanda Nishiki Cho. Chochiyode-ku, Tokyo, Japan.	Improved process for polymerizing ethylene.
157330	21-8-1982	Do.	Process for producing polyethylene.
158042	6-4-1982	Do.	A process of preparation of a catalyst for the polymerization or copolymerization of ethylene.
158588	29-3-1985	Do.	An improved process of polymerization or copolymerization of ethylene.
150213	21-11-1978	Nitto Boseki Co. Ltd., 1, Aza Higashi, Gono-me, Fukushima-shi, Japan	Glass composition having fiber forming properties and alkali resistant glass fibres made therefrom.

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145851	7-4-1977	Nitto Chemical Industry Co. Ltd., No. 5-1, Marunouchi 1-chome, Chiyoda-ku. Tokyo, Japan.	Process for producing acrylonitrile.
158193	10-3-1983	N. L. Industries Inc., 1230 Avenue of the Americas, New York, New York, 10020. (U.S.A.)	A method of preparing viscous pourable hydroxyethyl cellulose composition.
159877	23-2-1983	Do.	Low fluid loss heavy brines containing hydroxyethyl cellulose.
160284	5-4-1984	Do.	A composition for use as a well servicing fluid.
156965	26-2-1982	Otsuka Chemical Co. Ltd., No. 10, Bungomachi, Higashi-ku, Osaka, Japan.	A process for preparing 5-methyl N-(N-methyl-N(N-disubstituted aminosulfonyl) carbamoyloxy thio acetamide derivative.
145617	22-8-1977	Outokumpu, Oy Toolonkatu 4, SF-00100 Helsinki, Finland.	Hydrometallurgical process for the recovery of zinc, copper and cadmium from their ferrites.
147866	26-9-1977	Do.	A hydrometallurgical process for the recovery of valuable metal content from the soluble silicate-bearing materials.
150879	22-11-1978	Do.	A process for the separation of phosphate and carbonate minerals from each other by froth, flotating.
151790	6-2-1980	Do.	A process for scrubbing cyanide-bearing furnace gases which are produced in the metallurgical industry.
154127	22-11-1978	Do.	An improved process for recovering separately phosphate and carbonate minerals from phosphate carbonate silicate ores or concentrates.
155869	25-9-1981	Do.	A process for the recovery of lead, silver and gold from the iron-bearing residue of an electrolytic zinc process.
157144	1-7-1983	Do.	Procedure for roasting seleniferous material.
144037	19-11-1975	Personal products Co., Milltown, New Jersey, (U.S.A.)	A method of making absorbent cellulose particles.
144261	2-4-1975	Do.	A method for making cellulose graft copolymer.
146230	2-4-1975	Do.	A sanitary absorbent product having cellulose graft copolymers.
152798	25-8-1980	Do.	A method of producing a fibrous absorbent body.
159172	9-1-1984	Do.	Process for preparing resilient cellular polymers from a mine terminated poly (oxy-alkylene) and polyfunctional epoxides.
161626	15-3-1984	Do.	Process for preparing highly absorbent tentative cellulose pulp and an absorbent product obtained having the said cellulose pulp obtained by said process.
159290	22-10-1983	Pennwalt Corporation, Pennawalt Building, Three Parkway, Philadelphia PA 19102 (U.S.A.)	Granular pesticide composition.
159539	23-5-1983	Do.	A foamable and curable composition.
140732	11-3-1975	Pfizer Inc., 235 East 42nd Street, New York, State of New York (U.S.A.)	Immobilization of microbial cells.

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149649	11-5-1978	Phillips Petroleum, Co., Bartlesville, State of Oklahoma, U.S.A.	Process for recovering used lubricating oils.
149751	10-2-1978	Do.	A process for preparing a passivating agent and the catalytic process using said passivating agent in presence of a cracking catalyst.
150159	11-5-1978	Do.	Process for recovery of pure tube oil stock.
150700	16-10-1978	Do.	Process for cracking hydrocarbons using a modified, cracking catalyst combination with metal passivating agents.
155275	12-7-1982	Do.	A modified synergistic zeolite cracking catalyst composition.
156258	2-5-1983	Do.	A process for producing physiologically active protein.
156144	23-5-1983	Ribi Immunochem Research Inc., N-E, 581 Old Corvallis Road, P. O. Box 1409, Hamilton, Montana 59840, U.S.A.	A method of producing refined detoxified endotoxin product.
157240	25-9-1984	Do.	A method for preparing a therapeutic composition containing pyridine soluble extract refined detoxified endotoxin.
157241	23-5-1983	Do.	Method of preparing therapeutic composition.
157910	14-8-1984	Do.	A method of producing refined detoxified endotoxin.
157738	15-3-1984	Richter Gedeon Vegyeszeti Gyar RT, 19-21, Gyomrol ut, Budapest X, Hungary.	Process for the preparation of thiazoline derivatives.
158549	28-8-1984	Do.	Process for the preparation of fermentation broth for coenzyme B-12 and other corrinoid production.
160868	10-7-1984	Saint-Gobain Vitrage 'Les Miroirs' 18 Avenue d' Alsace, 92400 Courbevoie, France.	A method or for preparing plastics material of high optical quality and capable of absorption of energy.
161465	10-7-1984	Do.	Laminated safety pane.
162382	10-7-1984	Do.	Laminated safety pane.
162555	2-8-1984	Do.	Method of making refined glasses in a continuous process and device therefor.
156896	7-6-1982	Santanu Roy, 13, Nanda Kumar Chowdhury Lane, Calcutta 700 006, India.	A process for the manufacture of bitumen polymeric elastomers.
161852	10-12-1984	Do.	An improved ignitable composition of matter and process for preparing the same.
143184	8-10-1976	Shell Internationale Research Maatschappij, B. V. Carel Van Bylandtlaan 30, The Hague, The Netherlands.	Process for the separation of dry particulars matter from a hot gas.
143501	2-5-1975	Do.	A process and apparatus for producing a fuel gas by partially combusting a fuel that contains ash and yields a hot product gas containing sticky particles.

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143710	14-6-1976	Shell Internationale Research Maatschappij, B.V., Carel Van Bylandtlaan 30, The Hague, The Netherlands.	A process for the dehydrogenation of hydrocarbon with the end of an iron containing catalyst.
143874	18-1-1977	Do.	Process and apparatus for the preparation of De-watered carbonaceous particles.
148085	14-3-1978	Do.	Process for the partial combustion of finely divided solid carbonaceous fuel and reactor for carrying out the same.
150951	24-3-1980	Do.	Process for the preparation of hydrocarbons.
151797	29-10-1979	Do.	Process and equipment for the oxidation of soot obtained in the preparation of a gas mixture containing hydrogen and carbon monoxide.
152405	20-12-1979	Do.	Improvements in or relating to a process for regenerating solvents used in acid gas removal.
152671	2-4-1980	Do.	Process and burner for the gasification of solid fuel.
153718	1-7-1980	Do.	Process for the preparation of a hydrocarbon mixture.
153737	27-1-1981	Do.	A process for the preparation of hydrocarbon mixture from a mixture of carbon monoxide and hydrogen.
154191	26-3-1981	Do.	A process for the preparation of hydrocarbons.
154530	1-4-1981	Do.	A process for the synthesis of middle distillates of petroleum.
154483	14-10-1981	Do.	A process for preparation of oxygen-containing organic compounds and paraffinic hydrocarbons.
155501	3-11-1981	Do.	Removal of hydrogen sulphide and carbonyl sulphide from gaseous mixtures.
155631	24-5-1982	Do.	Process for the removal of H ₂ S from a sour gaseous stream.
155955	30-9-1980	Do.	Process for the partial combustion of solid, particulate fuel for the production of fuel gas and burner for carrying out the process.
156059	23-3-1977	Do.	Process for preparing modified silver catalyst for the manufacture of ethylene oxide.
156108	3-5-1982	Do.	Process for the removal of H ₂ S and CO ₂ from gaseous streams optionally comprising hydrocarbons.
156182	2-1-1982	Do.	A process and apparatus for the preparation of cooled and purified gas from a hot gas.
156408	14-6-1982	Do.	Process for the removal of CO ₂ , and if present H ₂ S from a gas mixture.
156826	11-5-1982	Do.	Process for the removal of CO ₂ , H ₂ S and COS from gaseous streams.

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156851	22-12-1981	Shell Internationale Research Maatschappij B. V., Carel Van Bylandtlaan 30 the Hague, the Netherlands.	Improvements in a column and a method for removing vinyl chloride from an aqueous slurry of polyvinyl chloride particles.
156920	24-5-1982	Do.	Sulphur recovery process.
157514	14-6-1982	Do.	Process for the removal of H ₂ S and CO ₂ from a gas mixture.
157810	6-10-1981	Do.	A process for the preparation of paraffinic and olefinic hydrocarbons.
158141	9-2-1983	Do.	A process for the separation of a liquid mixture by extraction.
158380	5-11-1983	Do.	Process for the preparation of a fishcoetropsch catalyst and use of this catalyst in the preparation of hydrocarbons.
158700	19-7-1983	Do.	Process for the preparation of hydrocarbons.
161117	8-11-1983	Do.	Process for the preparation of hydrocarbons.
146044	1-4-1977	Shin-Etsu Chemical Co. Ltd., 6-1, Otemachi 2-Chome, Chiyoda-ku, Tokyo, Japan.	Method for removing unreacted monomer from the aqueous dispersion of polymerizate of vinyl chloride.
147427	21-1-1978	Do.	Improved method for the polymerization of vinyl monomers.
149987	22-7-1978	Do.	An improved method for the polymerization of vinyl chloride monomer.
151895	4-10-1980	Do.	Method for the preparation of vinyl chloride resins by suspension polymerisation.
153574	24-7-1980	Do.	Improvements in the polymerization process of vinyl chloride.
157650	23-3-1982	Do.	Improvement in or relating to polymerization of an ethylenically unsaturated polymerizable monomer.
157818	5-10-1982	Do.	Improvements in or relating to a polymerization reactor used for carrying out polymerization of a vinylic monomer.
147145	5-12-1977	Showa Denko Kabushiki Kaisha, 13-9, Shiba Daimon 1-Chome, Minato-ku, Tokyo, Japan	Process for preparing a ferrochromium by using a blast furnace.
154852	29-9-1980	Shri Ram Institute for Industrial Research, 19, University Road, Delhi-110007 (India)	A process for manufacture of portland cement from wastesludge.
157786	16-4-1982	Shri Ram Institute for Industrial Research, 19, University Road, Delhi-110007, (India)	A process for imparting flame resistant properties to a textile web.
160148	6-9-1983	Do.	A process for the preparation of unsaturated polyester resins.
152503	8-7-1980	Sid Richardson Carbon & Gasoline Co., 31st Floor, Fort Worth National Bank Building, Fort Worth, Texas 76102, (U.S.A.)	An improved carbon black producing apparatus and method.
153577	19-12-1980	Do.	Improved process of producing carbon black of carcass grade.
62185	8-6-1984	Siemens AG, Berlin & Munich, West Germany	Method for manufacturing reaction resin moulded materials.
159723	4-10-1983	SKW Trostberg AG, Dr. Albert Frank Strabe 32, D-8223, Trostberg, F. R. G.	Nitrogen fertiliser with a content nitrification inhibitor.

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151193	19-3-1979	Societe Des Electrodes Et Refractories (SERS), 12, Rue du General Foy, 75008, Paris France.	A process for preparing paste.
147742	24-5-1978	Societe Franchaise D, Electrometallurgie 'Sofrem,' Rue General Foy, Paris 75361, Cedex 08, France.	Improvements relating to thermal process for the production of magnesium.
152626	24-4-1980	Societe Franchaise D, electrometallurgie Sofrem 10, Rue du General Foy 75008, Paris, France.	A process for desulfurizing cast iron, pig iron and steels.
154193	10-11-1981	Do.	Process for the production of low-carbon ferrochromium in a reactor.
143034	8-4-1976	Solvay & Cie 33, Rue du Prince Albert, B/1050 Brussels, Belgium.	Process for the polymerization of olefins.
152524	4-6-1980	Stamicarbon B. V., P. O. Box 10, Geleen, The Netherlands.	Process for the preparation of filaments of high modulus and tensile strength.
152912	9-5-1980	Do.	Process for treating urea containing waste water for recovering NH ₃ and CO ₂ therefrom and utilising said process in the process for preparing melamine.
154019	26-4-1980	Do.	Thermosetting powder based on a unsaturated polyester resin and process for preparing the same.
154475	22-7-1981	Stamicarbon B. V., P. O. Box 10, 6160 MC, Geleen, The Netherlands.	Process for the preparation of copolymers, of ethylene with at least one other 1-alkene.
154476	22-7-1981	Do.	Process for the preparation of copolymers of ethylene with at least one other 1-alkene.
154655	26-3-1981	Do.	Production of polyamide based objects and objects so produced.
154656	26-3-1981	Do.	Preparation of polytetramethylene adipamide.
154657	26-3-1981	Do.	Preparation of high molecular polytetramethylene adipamide.
154820	7-5-1981	Do.	Process for the preparation of a supported chromium oxide type catalyst for the polymerization of olefine.
156790	23-4-1983	Do.	Process for preparing cyclohexanol and cyclohexanone.
158001	28-6-1982	Do.	Process and device for the preparation of polymer melts which are substantially free of volatile components.
158211	3-3-1983	Do.	An improved process for preparing melamine.
158343	16-10-1982	Do.	Process for the production of polymer filaments having high tensile strength and modulus.
160048	22-9-1983	Stone & Webster Engineering Corporation, 245, Summer Street, Boston, Suffolk County Massachusetts 02107, U.S.A.	Process and apparatus for the thermal cracking of heavy hydrocarbon feed.
158586	29-5-1984	Takeda Chemical Industries Limited, 27, Dosh Doshomachi, 2-Chome, Higashi-ku, Osaka 541, Japan.	A process for producing cephalosporin ester derivatives.
161000	29-5-1984	Do.	Process for producing cephalosporin ester derivatives.

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144217	11-8-1975	The Board of the Rubber Research Institute of Malaysia, 260 Jalan Ampang, Kuala Lumpur, Malaysia.	Congulation of rubber latex.
144372	30-9-1975	Do.	Non-aqueous composition for stimulating the yield of rubber latex from <i>Hevea brasiliensis</i> .
157027	8-4-1983	The Coca-Cola Company, 310 North Avenue Atlanta, Georgia 30301, U.S.A.	The process for the preparation of soymilk
144134	16-9-1975	The Goodyear Tyre & Rubber Company, 1144 East Market, Sheet Akron, Ohio 44316, U.S.A.	Improvements in or relating to the re-use of vulcanised rubbers.
144027	14-4-1977	The Lubrizol Corporation, Box 17100, Euclid Station, Cleveland, Ohio 44117, U.S.A.	A process for preparing a magnesium containing complex.
144308	27-11-1975	—Do—	A method of producing nitrogen containing sulfurated Mannich condensation product useful as an additive for lubricants and normally liquid fuels.
144604	30-8-1976	—Do—	Process for the preparation of hydrocarbon substituted methylol phenol compositions.
144940	8-3-1977	—Do—	A lubricating composition.
145083	7-10-1976	—Do—	A lubricant composition for two cycle engines.
145084	7-10-1976	—Do—	Process for preparing amino phenol compounds.
145085	27-10-1976	—Do—	A process for making a nitrogen containing organic composition.
144833	1-7-1977	—Do—	A process for preparing a nitrogen containing additives.
148713	27-7-1977	—Do—	Method of making at least one nitrogen containing organic compound from a substituted nitrophenol and a hydrazine compound.
144315	1-2-1978	—Do—	Process for preparing a sulfurised composition.
149553	6-2-1978	—Do—	Lubricant Compositions.
149615	4-9-1978	—Do—	Process for preparing sulfurized composition.
150090	8-3-1979	—Do—	Process for preparing an additive compositions
152732	16-4-1980	—Do—	An improved phosphorus containing lubricating compositions.
152910	11-4-1980	The Lubrizol Corporation, 29400 Lakeland Blvd, Wickliffe, Ohio 44092, U.S.A.	Process for preparing mixed metal salts useful as additive for lubricants or functional fluids.
152939	18-9-1979	—Do—	Process for the preparation of a nitrogen containing phosphorus-free carboxylic acid derivative.
153881	25-10-1979	—Do—	Process for the preparation of carboxylic solubilizer/surfactant composition.
154056	14-11-1980	—Do—	A process for preparing a lubricant additive comprising metal/metal compound metalloid complexes.
155231	5-9-1981	—Do—	Improved crude oil composition.

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155264	22-9-1980	The Lubrizol Corporation, 29400 Lakeland Blvd, Wickliffe, Ohio 44092, U.S.A.	Lubricant additive compositions or concentrate comprising sulfurized alkyl phenol and high molecular weight dispersant.
155285	5-9-1981	—Do—	Mixed alkylesters of interpolymers for use in crude oils.
156085	22-9-1980	—Do—	An improved lubricating oil having new lubricant additives.
156659	24-5-1983	—Do—	A composition for use in oil based lubricants containing carboxylic acid derivatives of alkanol tertiary monoamines.
157101	11-4-1980	—Do—	Phosphorus and sulfur containing lubricating composition and functional fluid compositions of improved thermal stability.
157683	16-4-1980	—Do—	A process for preparing phosphorus-containing lubricant additive.
157985	25-9-1979	—Do—	An aqueous system comprising water and carboxylic solubilizer/surfactant composition.
158265	5-4-1984	—Do—	A process for preparing novel boron containing compositions.
15 598	8-9-1982	—Do—	A process for preparing a composition for lubricating metal during working thereof.
158900	8-2-1983	The Secretary of State for Defence etc. Whitehall, London SW1A, 2HB, England.	Process for the production of an aluminium base alloy.
160070	23-9-1983	—Do—	A process for the production of an aluminium base alloy.
161282	28-1-1984	—Do—	Liquid crystal composition.
145599	3-1-1977	Toth Aluminium Corporation, 5010 Leroy Johnson Drive, New Orleans, Louisiana, U.S.A.	Improved ore halogenation process.
149837	21-1-1977	—Do—	Improvements in or relating to process of carbochlorinating kaolinitic ore to produce aluminium chloride.
152670	23-3-1980	Toyo Engineering Corporation, No-2-5 Kasumigaseki 3-chome, Chiyoda-ky, Tokyo, Japan.	A reaction vessel for catalytic gas phase reaction and process for conducting an exothermic reaction.
153575	25-11-1980	—Do—	An improved process for the preparation of gaseous products from hydrocarbon containing materials in apparatus having surface coated with heat resistant material free of Nickel.
155233	22-1-1982	Toyo Engineering Corporation & Mitsui Toatsu Chemicals Inc., Both 2-5 Kasumigaseki, 3-chome, Chiyoda-ku, Tokyo, Japan.	An improved process for manufacturing urea.
156671	13-10-1982	Toyo Engineering Corporation, No. 2-5 Kasumigaseki 3-chome, Chiyoda-ku, Tokyo, Japan	Process for synthesizing urea.
159630	15-11-1982	Do.	A cyclic urea synthesis process.
148704	2-2-1975	Ugine-Aciers, 10 Rue du General Foy, 75008 Paris, France.	A process for the preparation of free machining Steel.
153218	8-4-1981	Unie-Van Kunstmetstfabrieken H. V., P. O. Box No. 45, 3500 AA Utrecht, The Netherlands.	Process for making urea pills.

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156310	18-11-1981	Unie Van Kunstmestfabriken B. V., Maliebaan 81, P.O. Box No. 45, 3500 AA Utrecht, The Netherlands.	Process for the removal of urea, ammonia and carbon dioxide from dilute aqueous solutions.
157071	18-2-1982	Do.	Process for the removal of urea, ammonia and carbon dioxide from dilute aqueous solutions containing urea, ammonia and carbon dioxide.
144385	10-3-1976	Union Carbide Corporation, 270 Park Avenue, New York, State of New York 10017, U.S.A.	Process for the preparation of low and medium density ethylene polymer in fluid bed reactor.
145501	30-6-1976	Do.	Improvements in adiabatic swing process for separation of gas mixtures by selective adsorption.
145670	6-1-1977	Do.	Method of preparing Nickel-Rhenium hydrogenation catalyst.
146105	29-10-1976	Do.	Process for removal of H ₂ S from a feed gas.
146147	29-3-1977	Do.	Process for producing particulate resoles from aqueous dispersion.
146241	7-4-1977	Do.	Continuous hydroformylation process.
146305	16-5-1977	Do.	A foam composition for treating a fabric or paper substrate.
146324	16-5-1977	Union Carbide Corporation, 270 Park Avenue, New York, State of New York-10017, U.S.A.	Process of treating fabrics with foam.
146408	24-1-1978	Do.	Improved hydroformylation process.
146661	6-7-1977	Do.	Improvements in or relating to hydroformulating an alpha-olefin.
146734	11-8-1977	Do.	A process for producing aldehyde product by rhodium catalyzed hydroformylation of alpha-olefin.
146956	17-6-1977	Do.	Process for refining molten metal.
147429	24-1-1978	Do.	Improved hydroformylation process.
150614	13-12-1978	Do.	Process for producing particulate filter-containing resole molding composition from aqueous dispersion.
150766	29-12-1979	Do.	Process for the removal of acid gas such as CO ₂ from a hydrocarbon feed gas.
151070	30-3-1979	Do.	Preparation of ethylene copolymers in fluid bed reactor.
152087	30-3-1979	Do.	A process for preparing a catalyst composition for homopolymerizing ethylene and the catalyst composition prepared by the same.
152088	30-3-1979	Do.	Impregnated polymerization catalyst process for preparing the same and its use for ethylene copolymerization.
152141	30-3-1979	Do.	Preparation of high density ethylene polymers in fluid bed reactor.
152145	27-12-1979	Do.	A process for producing a magnesium and titanium containing catalyst composition.

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152153	30-3-1979	Union Carbide Corporation, 270 Park Avenue New York, State of New York-10017, U.S.A.	Process for the preparation of high density ethylene polymers in fluid bed reactor.
152450	17-11-1979	Do.	A catalytic process for producing ethylene copolymer.
152790	27-3-1980	Do.	A process for preparing a hydroformylation medium and hydroformylation.
153581	6-2-1981	Do.	Composition of alkalene alkyl acrylate copolymers having improved flame retardant properties.
153888	17-6-1980	Do.	A process for making heterogeneous ethylene based polymers having a high tear strength.
154420	29-6-1981	Do.	An improved silica supported catalyst composition and process for preparing the same.
154537	24-10-1980	Do.	Improvement in hydroformylation process using stable rhodium catalyst.
155121	27-12-1979	Do.	A catalytic fluid bed process for producing ethylene polymers.
155337	18-3-1980	Do.	A process for preparing a catalyst containing 2 to 20 weight percent silver deposited on a support for the commercial scale production of ethylene oxide.
155681	29-9-1981	Do.	Process of producing a water curable silane-modified alkylene alkyl acrylate copolymer.
155691	30-3-1979	Do.	A catalytic process for producing ethylene homopolymer.
155885	25-11-1981	Do.	Linear low density ethylene hydrocarbon copolymer containing composition for extrusion coating.
156046	29-6-1981	Do.	An improved process for producing ethylene copolymer with a Ti containing catalyst.
156399	18-3-1980	Do.	A continuous process for the production of ethylene oxide.
156444	10-12-1981	Do.	A process for extruding film forming polyolefin resin based composition into film.
157177	24-6-1981	Do.	A corrosion inhibiting composition for inhibiting the corrosive action of aqueous alkaline solutions and a method of its preparation.
157385	23-9-1982	Do.	Process for preparing a supported silver catalyst for the production of ethylene oxide.
157471	24-6-1981	Do.	A corrosion inhibiting composition for inhibiting corrosive action of aqueous alkaline solution and a method of its preparation.
157837	4-10-1982	Do.	A process for preparing a supported silver catalyst.
158241	23-3-1983	Do.	An improved process for continuous production of polyene in a fluidized bed reactor.
158341	10-9-1982	Do.	Process for producing an improved particulate resole resin.

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159207	27-12-1982	Union Carbide Corporation, 270 Park Avenue New York, State of New York, 10017, U.S.A.	Process for producing particulate novolac resins and aqueous dispersions.
159791	17-6-1983	Do.	A method for refining crude butyraldehyde.
162111	27-6-1984	Do.	Process for eliminating surface melt fracture.
144019	30-8-1975	United States Borex & Chemical Corporation 3075, Wilshire Boulevard, Los Angeles, Califor- nia, U.S.A.	A process for the fluid bed dehydration of borax.
144076	28-5-1975	United Technologies Corporation, 1 Financial Plaza, Hartford, Connecticut 06191, U.S.A.	A method of preparing a coating composi- tion for improving the hot corrosion.
145818	16-8-1976	Do.	Process for preparing a thermally protected super alloy structure.
156645	21-10-1982	Voest Alpine AG & Veb Schwermaschinen etc. Werksgelände A-4010, Linz and DDR 3011, Magdeburg, G. D. R.	Process and apparatus for producing cement.
152741	2-8-1983	Westinghouse Electric Corporation (WEC) Westinghouse Building, Gateway Centre, Pitts- burgh, Pennsylvania 15222, U.S.A.	A method of applying an anti reflective coat- ing on silicon and a coated silicon chip there- by obtained.
152814	27-7-1979	Do.	A method of preparing a clear solution of a metal alkoxide.
154902	21-10-1981	Do.	Process for preparing fluid polyester insulating compositions.
155228	19-3-1981	Do.	Sprayable solventless adhesive bracing com- positions and method of preparing the same.
156384	27-7-1979	Do.	A method of preparing an oxide coating on a substrate.
158596	21-7-1982	Do.	Method of preparing a clear partially hydro- lyzed alumina alkoxide solution.
154739	11-8-1980	W. L. Gore & Associates Inc., Newark, Dela- ware, U.S.A.	Sprayable composition and method for coating a substrate with said compositions.

COMMERCIAL WORKING OF PATENTED INVENTIONS MECHANICAL & GENERAL LIST NO. IV

The following patents in the field of Mechanical & General Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under Section 146(2) of the Patents Act, 1970 in respect of Calendar year 1988 generally on account of want of request for licences to work the patented invention. Persons who are interested to work in said patents commercially may contact the patentees for the grant of licence for the purpose.

Patent No.	Date of Patent	Name & Address of the Patentee	Title of the invention
1	2	3	4
143740	21-2-1976	Ajitkumar Bhattacharya, C/o. S.S. Bhattacharya Block No. 9/5, Citizens Co-operative Hsg. Society, 103 Manicktola Main Road, Calcutta-700 054, W.B., India.	An improved rotating centre.
149425	25-5-1978	Aktiengesellschaft Kuhnle, Kopp & Kausch Friedrich-Ebert-Str. 16, 6710 Frankenthal/ Pfalz, West Germany.	Gas turbine, particularly exhaust gas super turbo charger.

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148540	20-1-1978	Aktiebolaget Medline, Wallingstan 37, S-11124 Stockholm, Sweden.	Device for at least temporary occlusion of body channels.
152765	17-9-1980	Allen Starling Johnson Jr., 1235 West Henderson Street, Salisbury, North Carolina, U.S.A.	A filter apparatus.
153645	19-9-1980	Do.	Filter apparatus for filtering particulate material.
154746	29-7-1981	Do.	Bag-type filter with air diffuser tubes of helical construction.
147181	19-10-1977	Alfred Rex Fernandez, R.S.S.O., Govt. of India, Ministry of Railways, Lucknow-226 011, U.P., India.	A quick release mechanism for use in a vacuum brake system of rolling stock
147182	19-10-1977	Do.	A vacuum brake system for rolling stock.
149676	15-3-1978	Aluminium Pechiney 28 Rue de Bonnel, 69003 Lyon, France.	A pneumatic conveying apparatus for conveying pulverulent material.
152378	9-5-1980	Do.	Apparatus for the dust-free handling of powder substances.
143504	15-10-1975	American Can Co., American Lane, Greenwich, Conn. 05830, U.S.A.	A method of drawing and ironing thin-walled cylindrical articles from flat metal sheet.
155392	13-3-1981	Do.	Method of making a multi-layer article such as a container.
155669	13-3-1981	Do.	Apparatus for making a multi-layered injection molded article such as containers.
145639	7-3-1977	Do.	Method of manufacturing a coated metal container and container so produced.
157199	4-10-1982	Do.	Collapseable dispensing container having improved barrier insert in the container headpiece.
149784	6-11-1975	American Flange & Manufacturing Co. Ltd., 30 Rockefeller Plaza, New York, 10020, U.S.A.	Improvements in or relating to drum closure.
146518	23-9-1976	American Standard Inc., 40 West, 40th Street, New York, 10018, U.S.A.	Brake control valve device with movable control reservoir charging valve.
150945	13-10-1978	Do.	Housing for draft gear.
147938	24-9-1977	Do.	An absorbing apparatus in a draft gear for railroad cars.
154743	12-10-1982	Amitabh Datta, 237, Jodhpur Park, Calcutta-68, West Bengal, India.	A device for aspraying liquid based chemicals.
159849	10-8-1984	Amitava Ghosh Dastidar, 5 Hungerford Court 12/1, Hungerford Street, Calcutta-17, West Bengal, India.	Reinforced concrete piles.
150644	6-9-1978	Antti K. Viljanmaa Torisevantie 4 A8, 34800 Virmat, Finland.	Apparatus for hides stretching.
157553	3-9-1982	Do.	Drying press for hides.
143915	10-12-1975	Arbrook, Inc. 2500 Arbrook Boulevard, Arlington, Texas, U.S.A.	A method of treating medical and surgical instruments household objects, to render them sterile.
157839	17-12-1982	Arthur Ernest Bishop 17 Burton Street, Mosman, New South Wales, Australia.	Rack and pinion steering gear.
158109	4-6-1983	Do.	Method and apparatus for making steering rack bars.
147429	2-2-1977	Arthur Gaoupal Bitziberg 5, Bachemulach, Switzerland.	Ozonizer.

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157822	16-8-1983	Bajaj Auto Limited, Akurdi, Pune 411035, Maharashtra, India.	An improved seat for two wheeler vehicle.
157825	31-10-1983	Do.	Improvements in or relating to front wheel suspension of two wheeler and three wheeler motor vehicles.
158394	31-10-1983	Do.	A locking arrangement for locking components such as spare wheel, oil tank, fuse box, petrol tank, battery and tool box of a two wheeler motor vehicle.
158755	31-10-1983	Do.	Combined locking devices for steering and ignition system of motor vehicles.
159084	7-5-1984	Do.	Improvement in or relating to the clutch of a motor vehicle particularly in two wheeled motor vehicles and three wheeled motor vehicles.
142750	7-11-1974	Banamali Sen 20, Brihadaben Mullick lane, Calcutta-700 009, West Bengal, India.	Slot ovens
150112	21-4-1981	Do.	Carbonising furnace for domestic fuel.
154038	31-1-1981	Battelle Development Corporation, 505 King Avenue, Columbus, Ohio 43201, U.S.A.	A method for Generating and super heating steam and apparatus therefor.
151073	24-4-1979	Bechtel International Corporation, 50 Beale Street, San Francis Co., California, U.S.A.	Apparatus for slack flow-elimination in a slurry pipeline.
151551	17-4-1979	Do.	Improvements in or relating to apparatus in a slurry pipeline station for pumping slurry.
156677	1-1-1983	Beghin-Say 59239 Thumeries, France. Beloit	Non-woven material for medical compresses.
150748	2-5-1979	Beloit Corporation, Beloit, Wisconsin U.S.A. 53511.	Apparatus for reeling a plurality of ribbons particularly from a slit paper web onto a reel spool.
150953	11-8-1980	Do.	An improved extended nip press for removing water from a travelling web in a paper machine.
151642	3-9-1979	Do.	Apparatus and method for handling a continuously running creped tissue web.
151848	3-9-1979	Do.	A press mechanism for removing liquid from a travelling fibrous web.
152292	29-1-1981	Do.	A press mechanism for removing liquid from a travelling fibrous web.
152559	5-4-1980	Do.	A paper web making apparatus.
153018	9-3-1981	Do.	A paper web processing apparatus and method of processing the paper web.
154817	3-1-1981	Do.	An apparatus for forming a fibrous web and method of forming the said fibrous web.
156316	1-6-1982	Do.	Improvements in a suction press roll for dewatering a travelling web in a paper making machine.
156488	10-3-1982	Do.	An apparatus for applying coating to both surfaces of a moving web and method of coating by the said apparatus.
156523	5-10-1982	Do.	A blade type coating applicator for coating travelling paper webs.

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157322	12-11-1982	Beghin—Say 59239 Thumeries, France. Beloit Corporation, Beloit, Wisconsin U.S.A. 53511.	A device for separating the marginal edge of a paper web formed on a foraminous travelling wire.
157429	3-9-1982	Do.	A blade type fountain coating applicator especially suitable for paper web coating and method thereof.
157753	5-7-1982	Do.	An assembly for collecting a pile of sheets discharged into a collection area from a sheeting machine and transferring said pile away from the collection area.
157983	8-6-1983	Do.	A system or arrangement for driving the rolls in co-operative upper and lower tiers of a paper machine dryer section.
158007	15-9-1983	Beloit Corporation, Beloit, Wisconsin, U.S.A.	Mechanism for drying a travelling web in a drum used in paper making machine.
158402	2-8-1983	Do.	A dryer section for drying a travelling fibrous web such as in a paper making machine.
159200	2-8-1982	Do.	A method and an apparatus for applying coating to paper sheet web.
159583	11-10-1984	Do.	Disc screen shaft and method of and means for manufacturing the same.
159610	18-1-1982	Do.	An apparatus or high speed size application.
159744	2-9-1983	Do.	Improvement in paper making machine and particularly to method and mechanism for positive web press section of the machine.
160869	10-8-1984	Do.	Batch digester multi-stage pulping process.
161246	3-9-1984	Do.	A winder for continuously winding a travelling web onto a roll.
161515	2-12-1983	Do.	Paper board dryer felt run for removal of liquid or moisture from a travelling web.
161698	10-7-1984	Do.	Disk screen apparatus and method of making the same.
161969	5-3-1985	Do.	Press structure in paper making machines.
162165	5-11-1984	Do.	An improved paper machine headbox.
162166	3-12-1984	Do.	Extended nip press.
162485	8-10-1984	Do.	Supercalenders used in paper making machines.
162681	13-9-1983	Do.	Apparatus for effective control of cross machine moisture profile of a paper web in a paper making machine and method therefor.
162748	28-6-1985	Do.	Machine for winding a web of paper on a roll core.
163080	3-1-1985	Do.	An apparatus for headbox jet velocity measurement.
148670	1-9-1978	Beloit Walmsley Ltd., Atlas Works, Bury, Lancashire, England.	Improvements relating to forming machines for paper webs.
160723	18-4-1984	Do.	Method and apparatus for deinking fibrous waste paper stock or slurry.
151957	26-5-1979	British Railway Board, 222 Marylebone Road, London, N.W.1, England.	Railway vehicles.

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152955	18-8-1980	British Railway Board, 222, Marylebone Road, London, N. W. 1, England.	A railway vehicle or bogie.
153321	5-9-1981	Do.	Measuring vehicles for roadways.
155423	7-7-1981	Brown & Williamson Tobacco Corporation, 1600 West Hill Street, Louisville, Kentucky 40232, U.S.A.	Apparatus for making grooves in tobacco smoke filters.
155856	3-2-1983	Do.	Cigarette filter.
156401	23-2-1982	Do.	Cigarette filter.
157633	2-2-1983	Do.	Improvements relating to tobacco smoke filters.
155876	11-6-1982	Carclo Engineering Group Plc., Acre Street, Lindley, Huddersfield, West Yorkshire, England.	A card-clothing assembly and a method of producing a card-clothing assembly.
148195	13-6-1977	C. Eugen Maier Metallverarbeitung GmbH Friedrich-List-Str. 41, D-7012 Fellbach, F.R.G.	A flyer for yarn or thread winding machines.
151688	29-5-1981	C. Eugen Maier Metallverarbeitung GmbH Friedrich-List-Strasse 41, Postfach 1745, 7012 Fellbach, West Germany.	Flyer for yarn thread winding device.
153962	29-5-1981	Do.	Presser of a flyer for a yarn or thread winding device.
152873	7-2-1980	Chicopee 303 George Street, New Brunswick, New Jersey, U.S.A.	Non-woven fabric and method for producing the same.
157924	1-1-1983	Do.	Non-woven fabric valuable combination of properties.
159175	25-6-1982	Do.	An improved catenarial device having an absorbent thermal bonded non-woven fabric.
161331	11-3-1983	Do.	Process and apparatus for producing uniform fibrous web at high rate of speed.
156799	22-7-1981	C.I.L. Inc. Dorchester Blvd West, Montreal Quebec, Canada.	Method of assembling a column of explosives and the column of explosives assembled thereby.
159183	27-1-1983	Do.	Apparatus for the packing of viscous gel-like explosive material into convoluted paper tubes.
144816	12-2-1976	Clupak Incorporated, of 530 Fifth Avenue, New York, State of New York, 10036, U.S.A.	High bagasse content newsprint paper and method for making the same.
149786	24-5-1976	Do.	Nip roll for treating web material and method of manufacturing the same.
145538	16-8-1976	Compagnie Generale D'Electricite, 54 rue la Boetie 75382 Paris, Cedex 08, France.	A device for generating hydrogen.
146882	22-12-1975	Contraves A.G., Schaffhauserstrasse 580, 8052 Zurich, Switzerland.	An assembly which can be used as a ramp.
160893	7-5-1984	Do.	An optical system for a periscope like sighting device for locating, tracking and ranging a target.
160894	7-5-1984	Do.	Periscope-like sighting device.

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149304	16-12-1977	Dainichi-Nippon Cables Ltd., 8, Nichino-cho, Hashimukaijima, Amagasaki-shi, Hyogoken, Japan.	Apparatus for separating wires.
149639	21-3-1978	Do.	A curing apparatus for the production of shaped articles of cross-linked polymeric material.
154437	8-7-1981	Davy McKee A.G. Borsignalle 1, 6000 Frankfurt (Main) 60, West Germany.	An improved process for the production of high tenacity technical grade yarns of polyamide and polyester.
154897	8-7-1981	Do.	Process and apparatus for the production of high tenacity technical grade yarn from a polymer by spin-drawing.
161856	28-2-1985	Degussa A.G. Weissfrankenstrasse 9, 6000 Frankfurt (Main), F.R.G.	High-pressure sintering furnace.
147631	23-9-1977	Demag A.G. Wolfgang-Reuter Platz, D-4100 Duisberg, West Germany.	Device for the continuous removal of dumps of bulk material.
149669	25-1-1979	Do.	Tensioning device for tension elements on metallurgical containers especially on interchangeable converters.
153610	18-12-1980	Denki Kagaku Kogyo Kabushiki Kaisha, 4-1, Yuraku-cho, 1-chome, Chiyoda-ku, Tokyo, Japan.	Improved process for the production of carbon black.
144112	10-2-1977	Dr. C. Otto & Comp. GmbH, Christstrasse 9, 463 Bochum, West Germany.	Device for discharging dusty gases resulting from the pushing of cooking ovens.
146160	15-3-1977	Do.	Apparatus for cleaning the doors of cooking.
148622	20-4-1978	Do.	A method for taking in and taking away gases leaking during cooking and a device therefor.
148626	3-4-1978	Do.	Means for supporting the battery decking of underjet coke ovens.
152170	30-5-1981	Do.	Closing and opening device for use in coke ovens.
152680	2-6-1980	Do.	A method of renewing the brickwork of coke ovens.
152766	31-10-1980	Do.	Coke car for coke ovens.
153268	2-6-1980	Do.	A coke oven battery.
153277	4-12-1980	Do.	Door extractor for the closures of horizontal coke ovens.
153338	2-6-1980	Do.	Extraction of gases evolved in the charging of coke ovens.
153339	24-11-1980	Do.	Coke oven battery adapted to be regeneratively heated by lean gas or rich gas at choice.
153570	25-2-1980	Do.	Nozzle provided with several outlet apertures for coke ovens.
155623	12-2-1981	Do.	Apparatus for dry cooling of hot raw coke.
156936	24-12-1982	Do.	Heating system for the regenerative heating of a coke oven battery having twin heating flues.
158142	15-2-1983	Do.	A temperature measuring means for coke oven chambers walls.

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155608	1-10-1981	Dresser U.K. Ltd., 197 Knights bridge, London, SW7 1RJ, England.	A method and apparatus for treating a polluted gas with a liquid.
146438	24-12-1976	DRG (UK) Limited, 1 Redcliffe Street, Bistol, England.	A method of assembling a printing roll comprising sleeve and a role core and a detachable sleeve Printing roll so obtained.
146439	22-6-1977	Do.	A method of producing a printing roll and the roll so produced.
148753	19-8-1977	Dunlop Limited, Dunlop House, Ryder Street, St. James's London SW1, England.	Improvements in or realting to springs.
149325	28-5-1977	Do.	Improvements to tyre and wheel rim assemblies.
144640	15-9-1975	Durametallic Corporation, 2104 Factory Street, Kalamazoo, Michigan, U.S.A.	An improved mechanical seal construction.
149306	11-1-1978	Do.	Improvements in a bypass flush system for a mechanical seal assembly.
150295	30-11-1979	Eastern Carbons, Such Milan, Telephone Exchange, Road, Dhanbad 826001, Bihar, India.	Improved beehive coke oven.
150303	30-11-1979	Do.	A battery of improved beehive coke ovens.
150489	21-1-1980	Do.	Self generated continuous carbonising furnace.
158494	7-4-1982	Do.	Equipment for continuous devolatilisation of coal.
150431	22-8-1978	Edward Koppelman, 4424 Bergamo drive Encino, California 913 316, U.S.A.	Apparatus and method for thermal treatment of organic carbonaceous material.
154948	6-2-1982	Do.	Self-cleaning screw conveyor.
150363	9-8-1978	E.I. Du Pont De, Nemours & Co., Wilmington Delaware, United States of America.	A method of anchoring or fixing a reinforcing member in a hole and a compartmental package grouting system for use therein.
152279	28-1-1980	Do.	Process for preparing security paper from film-fibril sheets and security paper made by the process.
153947	6-11-1980	Do.	A compartmented grout cartridge for use in anchoring a reinforcing member in a hole.
147887	23-11-1977	Eisenwerk Gesellschaft Maximilianshutte GmbH, 8458, Sulzbach, Rosenberg, West Germany.	A method of and apparatus for constructing refractory brick linings on tuyere plates of vessels for treating, and in particular refining metal melts.
149859	7-12-1978	Do.	Method of improvement of the heat-balance in the refining of steel.
154943	8-2-1979	Emhart Industries Inc., 426 Colt Highway, Farmington, Connecticut-06032, U.S.A.	Improvement in the apparatus for shearing gobs from a column of plastic use with a feeder materials.
142891	18-8-1976	Ethicon Inc. Sommerville, New Jersey, U.S.A.	Surgical adhesive tapes.
145409	14-12-1976	Do.	Absorbable surgical suture and a process for preparing same.
149040	25-5-1978	Do.	A package for multistrand surgical suture.
151717	4-5-1978	Do.	Bonded controlled release needle-suture and a method of preparing same.

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151996	12-2-1980	Ethicon Inc. Sommerville, New Jersey, U.S.A.	A hemostatic plastic clip.
152006	12-2-1980	Do.	Instrument for applying ligating clips.
155971	16-7-1982	Do.	An improved ligating clip package.
156383	7-2-1983	Do.	An improved retainer for needled surgical sutures.
156669	21-7-1982	Do.	An improved cartridge for hemostatic clips.
157021	8-3-1983	Do.	Retainer for sterile surgical products.
157451	10-3-1983	Do.	Means for removably securing a plurality of sterile curved surgical needles substantially in the same plane and a package therefor.
157718	15-2-1983	Do.	Ligating clip with flanged base having a recessed engaging face.
157984	15-6-1983	Do.	Improved surgical instrument for suturing tissues and organs.
158239	15-2-1983	Do.	Ligating clip and applicator instrument therefor with clip engaging escapement.
158303	15-3-1983	Do.	A scissors type medical instrument for repeatedly applying a plurality of ligating clips across about tissue.
159239	15-2-1983	Ethicon Inc. Route No. 22, Somerville, New Jersey, U.S.A.	A repeating scissors-type medical instrument for applying a plurality of ligating clips serially.
159614	29-7-1982	Do.	Non-metallic bio-compatible hemostatic clips with interlocking latch means.
159722	3-10-1983	Do.	Hard issue surgical needle.
160327	28-5-1984	Do.	A hemostatic clip made from a polymeric material.
161113	15-2-1983	Do.	A repeating medical instrument for applying a plurality of ligating clips serially about tissue.
161578	24-1-1984	Do.	A sterile surgical unitary fastener for joining animal or human tissues.
150860	20-3-1979	Eugene Walter Sivachenko, 6471 Riverside drive, Redding, California, U.S.A.	A long span bridge.
151232	16-12-1978	Do.	A bridge for suspension between spaced apart bridge supports.
144646	18-9-1976	Festo-Maschinenfabrik Gottlieb Stoll Ulmer Strasse 48, Esslingen a.N., F.R.G.	Connecting apparatus for use in fluid supply lines.
149138	30-12-1977	Festo-Maschinenfabrik Ulmer strasse 48, Esslingen, West Germany.	Fluid transfer apparatus.
151441	19-9-1979	Do.	Connecting piece for supply lines carrying gaseous or fluid media.
153195	17-9-1979	Do.	Rotary slide valve.
158296	23-4-1982	Festo-Maschinenfabrik Gottlieb Stoll Ulmer Strasse 48, 7300 Esslingen, F.R.G.	A spool valve.
157460	26-7-1982	Firma Carl Still GmbH & Co. Kg. 4350 Recklinghausen, Postfach 101851, F.R.G.	Coke oven door.

1	2	3	4
159002	11-4-1983	Firma Carl Still GmbH & Co. Kg. 4350 Racklinghausen Pastfach 101851 F.R.G.	Improvements in and relating to coke oven doors.
159556	2-7-1983	Do.	Improvements in and relating to a coke oven door.
156250	18-10-1982	Fisher Control International Inc., 7711 Bonhome, Clayton, Missouri 63105, U.S.A.	Pneumatic Controller for controlling a Process variable.
157430	14-10-1982	Do.	Dynamic fluid pressure sensor for a vortex-shedding flowmeter.
150675	16-1-1979	Flogates Ltd. Sandidron House, Beauchief Sheffield 57, 2RA, England.	Method and apparatus for the making of a metal casting.
156508	17-1-1982	Do.	Metal folding apparatus and method.
153696	31-1-1981	Francois Toure Chetaau de Logne 57310 Guenange, France.	Heat exchanger for cooling the wall and the refractory of a blast furnace.
156109	6-5-1982	Do.	Improvements to hot-blast nozzles, particularly for blast furnace.
156667	29-5-1982	Fried Krupp GmbH, Altendorfer Strasse 103, D-4300 Essen 1, West Germany.	Apparatus for separating a sponage iron product produced in a rotary furnace.
159915	22-3-1984	Do.	Travelling winch cable hoisting mechanism with oscillation damping.
160152	27-1-1984	Do.	Method of manufacturing of hot clad metal strip through rolling under high pressure.
160228	16-10-1984	Do.	Apparatus for preheating lumpy ore or the like.
145490	17-3-1977	G.D. Societa Per Azioni, Via Pomponia, 10 Bologna, Italy.	Device for putting the inner foil wrapper with the length's long ends over one of the larger faces of the bundle of cigarettes in a very high speed soft packet cigarette packer.
146011	8-3-1977	Do.	Improved device for folding the head portion of inner wrappers in a machine for packetting cigarettes into hinged lid type packets.
146388	7-3-1977	Do.	Device for guiding and holding cigarette batches in apparatuses for transferring said batches from a conveyor upto a machine for packetting cigarettes into hinged lid type packets.
160988	30-5-1983	G.D. Societa Per Azioni, Via Pomponia 10 40100 Bologna, Italy.	Device for forming groups of cigarettes in cigarette packaging machines.
160714	11-5-1984	GEA Luftkuhlergesellschaft Happel GmbH & Co., No. 43-47, Konigsallee, 4630 Bochum, F.R.G.	Apparatus for heat exchange.
161340	12-2-1985	Do.	Apparatus for drawing on transverse ribs.
148419	20-1-1978	General Electric Company, 1 River Road, Schenectady 5, New York, U.S.A.	Temperature resistant machine tool component and method for making same.
153134	22-10-1980	Do.	Improved method of making diamond compacts for rock drilling.
153537	27-12-1980	Do.	Continuous metal casting method, apparatus and products.
155060	28-7-1981	Do.	In a power plant a system for controlling the operation of a steam turbine.
161623	3-11-1983	Do.	Continuous metal casting method apparatus and product.

1	2	3	4
155806	27-9-1979	General Motors Corporation, 3044, West Grand Boulevard, Detroit, Michigan, U.S.A.	A rigid self supporting gas permeable low temperature bonded sand particle mold.
155807	27-9-1979	Do.	A method and apparatus of casting metal in a rigid, self-supporting, gas permeable low temperature bonded sand grain mold.
159294	26-4-1983	G.N.B. Batteries Inc., 1110 Highway 110, Mendota Heights, Minnesota 55118, U.S.A.	An apparatus for welding a workpiece requiring a predetermined welding sequence to be effected and method for manufacturing lead storage battery by employing the apparatus.
149011	14-3-1978	Gutehoffnungs Huette AG, Bahnhofstr. 66, West Germany, 42 Oberhausen 11, West Germany.	Multi-bay steel production plant with one or more electric arc furnaces.
150129	14-3-1979	Hein, Lehmann AG, Fichtenstr. 75, D-4000 Dusseldorf 1, West Germany.	A screening machine.
155093	2-9-1981	Do.	Apparatus for producing sugar solution of constant density from sugar and dissolving fluid.
160081	17-5-1983	Do.	Screening machine.
150031	19-5-1978	Henred Fruehauf Trailers (Pty) Ltd., Private Baag, 5 Bergvlei, Transvaal 20121, South Africa.	An improved freight carrier.
154180	19-5-1980	Do.	An improved freight carrier.
152531	23-10-1980	Hitachi Limited, 5-1, Marunouchi, 1 Chome, Chiyoda ku, Tokyo, Japan.	Helical winding for inductor.
154492	27-4-1982	Do.	Shurry drip feeding apparatus.
156092	13-11-1981	Do.	A device for operating a water-turbine or a pump water turbine.
156788	22-10-1982	Do.	Rotary shaft water seal device in hydraulic machine.
157157	30-10-1982	Do.	Method of producing elongated large size forged article.
158192	23-2-1983	Do.	Rotary type pumping machine.
158685	4-7-1983	Do.	Shaft sealing apparatus.
155502	3-4-1982	Hoechst Ag, 6230, Frankfurt/Main 80, West Germany.	Metering device.
151023	13-11-1978	Hollandse Signal apparaten B.V. Zuidelijke Havenweg 40, P.O. Box 42, 7550 GD Hengelo, The Netherlands.	Method for the manufacture of twistless or substantially twistless yarn and yarn whenever manufactured by the application of this method.
153713	24-11-1979	Do.	Method for producing textile fabrics from yarns and the fabric obtained by applying this method.
150622	25-10-1979	Hollingsworth (UK) Ltd., Seaitcliffe Street, Accrington Lancashire BB5 0rn, England.	Improvements relating to opened spinning apparatus.
150623	25-10-1979	Do.	Improvements relating to opened and spinning apparatus.
158456	10-5-1983	Do.	Friction spinning apparatus for forming a yarn.
159688	7-11-1983	Do.	Friction spinning apparatus.

1	2	3	4
150689	28-2-1979	ICI Australia Ltd., 1, Nicholson Street, Melbourne, Victoria, Australia.	A fuse device.
157676	15-12-1981	Imperial Chemical Industries Plc. Imperial Chemical House, Millbank London SW1P 3JF England.	A device for initiating explosions.
158557	3-11-1982	Do	Reactor for use in a catalytic reaction.
158995	13-12-1982	Do.	Process for the selective separation of atleast one phase of a fluid fossil fuel composed of a plurality of phases of different densities.
147487	29-6-1978	Indian Explosives Ltd., 34 Chowringhee, Calcutta-700 071, West Bengal, India.	A self sealing pack and a method of making the same.
147782	5-8-1978	Do.	A cartridge spacer assembly.
155533	11-3-1977	Indian Explosives Ltd., ICI House, 34, Chowringhee, Calcutta-700 016, West Bengal, India.	Multiple fuse igniter.
156865	1-12-1982	Dr. Ing. Gunter Altland Amselweg 3, D-5750 Menden 2, West Germany.	An elongated outline nozzle for tundishes in continuous casting units.
160226	13-8-1984	Prof. Dr. Ing. Dieter Wurz, Haid Und New Str. 8, 7500 Karlsruhe, F.R.G.	A mist eliminator for eliminating droplets from a gaseous flow.
151641	8-8-1979	J.J. Bollmann Fluhgasse 49, CH-8008 Zurich, Switzerland.	System for anchoring structural members.
161404	6-2-1985	Do.	Base support for pole
144910	22 10-1975	Johannes Zimmer Ebentaler Strasse 133, 9020, Klagenfurt, Austria.	Squeegee device.
140747	20-3-1975	Johnson & Johnson, 501 George Street, New Brunswick, New Jersey, U.S.A.	A blood filter unit
140784	20-3-1975	Do.	Blood filtration unit.
142385	15-10-1975	Do.	A surgical face mask.
143246	26-6-1976	Do.	Process for producing adhesive tapes from thermoplastic elastomeric materials.
143598	15-10-1975	Do.	Surgical dressing.
145168	18-1-1977	Do.	A stabilized flavoured tooth cleaning article.
145944	21-6-1977	Do.	Reticular web.
146649	6-5-1977	Do.	A self supporting elastic and thermoplastic film and process for extruding the same.
146650	7-6-1977	Do.	A highly flexible and comfortable disposable absorbent dressing.
146826	9-8-1977	Do.	Pressure sensitive adhesive tape.
148709	21-10-1978	Do.	A water resistant orthopaedic bondage.
149493	8-3-1979	Do.	Paper surgical tape.
149758	19-2-1979	Do.	Layered absorbent structure.
149759	19-2-1979	Do.	A sanitary napkin disposable diaper and catamential lampoon having a core of absorbent product.
150099	24-7-1978	Do.	Normally nontacky adhesive tape.
154121	15-7-1981	Do.	A method for forming a body fluid absorbent from peat moss and absorbent so prepared.

1	2	3	4
159720	21-9-1983	Johnson & Johnson 501, George Street, New Brunswick, New Jersey, U.S.A.	Process for manufacturing calendered pear moss board having enhanced absorbency.
161063	11-10-1983	Do.	Unitary adhesive bandage.
161717	18-5-1984	Do.	An apparatus for removing ethylene oxide from gaseous stream.
156931	22-10-1982	Johnson & Johnson Baby Products address as above.	Puzzle Toy.
159669	23-12-1983	Kerb-Konus-Vertriebes GmbH, D-8454 Schraittenbach, West Germany.	Self-cutting threading insert.
159685	31-10-1983	Do.	Self-cutting threading-insert.
143971	18-10-1976	Kirloskar Oil Engine Ltd., Laxmanrao Kirloskar Road, Khadki, Pune 411 003.	Improvements in crankcase of an internal combustion engine.
145494	11-10-1976	Do.	A pre-combustion chamber for an internal combustion engine.
150454	21-2-1980	Do.	An improved inlet manifold for use in a compression ignition internal combustion engine operating on Bi-fuel.
155051	29-8-1981	Korf Engineering GmbH, Neusser strasse 111, 4000 Dusseldorf 1, West Germany.	Process and apparatus for directly making liquid pig-iron from coarse iron ore.
157687	29-8-1981	Do.	Apparatus for directly making liquid pig iron from coarse iron ore.
145059	11-5-1976	Kraftwerk Union AG, Mulheim (Ruhr), Wiesenstr. 35, F.R.G.	A steam generator for operation with pulverised coal and gas.
145711	11-5-1976	Do.	A steam generator for operation with coal firing.
146445	31-3-1978	Do.	Screening member for separating solids from gaseous media.
147568	1-8-1977	Do.	Turbine casing assembly.
147753	2-8-1977	Do.	A shaft seal for a steam turbine with a divided outer housing and a shaft seal cover.
150116	7-6-1978	Kraftwerk Union AG, 4330 Mulheim (Ruhr), Wiesenstr. 35, German Federal Republic.	Damping arrangement for turbo machine rotors.
152037	15-4-1981	Kraftwerk Union AG, 433, Mulheim (Ruhr) Wiesenstr 35, Federal Republic of Germany.	Desalination apparatus.
152441	13-5-1981	Do.	Hydraulic drive apparatus for turbine valves.
152594	1-2-1980	Do.	Apparatus for the gasification of coal.
152687	13-5-1981	Do.	Hydraulic drive apparatus for a turbine valve.
155429	21-4-1982	Do.	Hot gas system for driving generators.
157634	10-3-1983	Do.	A guide vane ring of a turbo machine with an arrangement for damping vibration.
158404	1-10-1983	Do.	Steam turbine condenser having atleast one steam by-pass inlet.
159323	14-6-1983	Do.	Apparatus for the desalination of brine.
159916	2-5-1984	Do.	Combined gas turbine/steam turbine plant having a coal gasification plant connected upstream thereof.
151987	25-9-1981	KRW Energy System Inc., Three Greenway Plaza, Houston Texas, 77046, U.S.A.	Fluidized bed gasification reactor and method of producing therein a combustible gas from a particulate carbonaceous material.

1	2	3	4
152370	17-1-1981	KRW Energy System Inc., Three Green way Plaza, House Texas 77046, U.S.A.	A fluidized bed combustion apparatus.
153351	25-8-1981	Do.	Apparatus for filtering particles from a mixture of particles in a high temperature gas.
156313	26-11-1982	Do.	A fluidized bed apparatus.
161610	14-3-1985	Do.	Fluid bed gasifier for carbonaceous material.
150591	22-11-1978	Kubota Ltd., No. 1-2-47 Shikizu-Higashi. Namiwaku, Osaka, Japan.	Flexible plastic pipe joint.
151566	27-9-1979	Kubota Ltd., No. 2-22. Funale-cho, Namiwaku Osaka-shi, Japan.	Method of forming a socket end on a plastic pipe and a molding device for use of the method.
159619	7-6-1983	L' Air Liquide Societe Anonyme Pour L' Etude Et L' Exploitation Des Procedes Georges Claude, 75 Quaid, Orsay-75007, Paris, France.	Improved thermally insulated container.
160331	17-2-1984	Do.	Apparatus in particular a reactor for purifying fluid by absorption.
160739	25-6-1984	Do.	Process and device for vapourizing a liquid by heat exchange with a second fluid and their application in an air distillation installation.
161131	31-1-1984	L' Air Liquide Societe Anonyme Pour L' Etude Et L' Exploitation Des Procedes Georges Claude, 75 Quaid, Orsay-75007, Paris, France.	Apparatus for cooling a fluid from about ambient temperature to a low temperature.
152349	22-5-1980	Lothar Teske, Hegelstr, 15, 5000 Koln 90, West Germany.	Arm-type feeder wheel for unloading solids from a storage bin.
152908	25-2-1980	Do.	A bunker clearance vehicle.
156252	27-8-1982	Do.	Ash removal device for coal firing systems of steam generators.
157356	26-4-1982	Do.	Discharging device for a loose material bunker.
144140	3-5-1975	MAN Maschinenfabrik Augsburg Nurnberg AG. Katzwanger Strasse 101, D-8500, Nurnberg, F.R.G.	An apparatus for raising the dynamic output limit of steam in turbines or compressors.
153930	2-5-1980	MAN Gutehoffnungshutte GmbH. Bahnhofstrasse 66, 4200 oberhausen 11, F.R.G.	Rotary machines.
154526	8-1-1981	MAN Gutehoffnungshutte GmbH. Bahnhofstrasse 66, 4200 oberhausen 11, F.R.G.	Rotary compressor in particular screw rotary compressors.
153040	27-10-1980	MAN Maschinenfabrik Augsburg Nurnberg AG. Postfach 110240, 4200 Oberhausen 11, F.R.G.	Coal gas treatment apparatus.
154116	20-6-1981	MAN Maschinenfabrik Augsburg-Nurnberg AG. Bahnhofstrasse 66, 4200 Oberhausen 11, Federal Republic of Germany.	A compressor especially a single stage or multistage screw compressor with means for regulating the quantity of flow of the compressed medium.
159054	25-6-1983	Do.	A method for the production of synthesis gas and a reactor for carrying out the method.
159529	21-2-1984	MAN Maschinenfabrik Augsburg Nurnberg A.G. Postfach 440 100, 8500 Nurnberg, 44, West Germany.	Bucket-wheel excavator.
160118	12-3-1984	Do.	En-masse conveyor for vertical or steep delivery of bulk material.
160702	23-2-1984	Do.	Bucket wheel machine.

LIST NO. V

COMMERCIAL WORKING OF PATENTED INVENTIONS MECHANICAL & GENERAL

The following patents in the field of Mechanical & General Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under Section 146(2) of the Patents Act, 1970 in respect of calendar year 1988 generally on account of want of request for licences to work the patented inventions. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a licence for the purpose.

Patent No.	Date of Patent	Name and Address of the Patentee	Title of the Invention
1	2	3	4
143376	05-12-1975	Metallgesellschaft AG 16 Frankfurt A. M. Reuterweg 14, West Germany.	A method for the production of heat by combustion of carbonaceous materials.
149966	20-08-1979	Do.	Seiving roller conveyor for green pellets.
152530	07-10-1980	Do.	Apparatus for regenerating absorbent.
153712	26-11-1981	Do.	Rotary hearth furnace plant.
156560	27-09-1982	Do.	An apparatus for sealing a rotatable tubular member in a stationary housing.
159050	09-06-1983	Do.	Annular machine for contacting solids and gases.
159579	07-07-1984	Do.	Apparatus for discharging fine grained solids.
160995	28-06-1983	Do.	Process for the manufacture of fired pellets by hard firing green pellets.
161919	17-02-1986	Metallurgical & Engineering Consultants (India) Ltd., Doranda, Ranchi-834 002, Bihar (India).	Coke oven foul gas off-take system.
148170	27-07-1978	Metallurgical Development Company, Trust Corporation of Bahamas Building, West Bay Street, Nassau, Bahamas.	Improvements in or relating to tuyeres for blast furnaces and furnaces having such tuyeres installed therein.
148333	15-04-1977	Do.	Blast furnace charging apparatus.
152885	02-04-1981	Mineral Deposits limited, 81 Ashmore Road, South Port, Queens land, Australia.	A spiral separator.
153222	02-04-1981	Mineral Deposits Ltd., New South Wales, Common Wealth of Australia.	A spiral Separator.
153521	04-02-1980	Mineral Deposits Limited, 81 Ashmore Road, Southport, Queensland, Australia.	A spiral separator and a method of west gravity concentration of solids.
155472	06-01-1982	Do.	Improvements in spiral separator.
151124	30-09-1979	Miner Enterprises Inc., 1200, East State Street, Geneva, State of Illinois, U.S.A.	Method of making Polyester elastomer compression spring.
159839	03-01-1984	Do.	A railroad car truck.
158502	06-12-1982	Mitsubishi Jukogyo Kabushiki Kaisha, 5-1, Marunouchi 2-chome, Chiyoda-ku-Tokyo, Japan.	Calcining apparatus for powdery materials.
161118	06-01-1984	Do.	Lift of aircraft boarding bridge.
154807	12-01-1982	Mitsubishi Mining & Cement Co. Ltd., 5-1, Marunouchi, 2-chome, Chiyoda-ku, Tokyo, Japan.	Cyclone separator.
149965	04-09-1979	Mitsui Toatsu Chemicals Inc. & Toyo Engineering Corporation, No. 2-5, Kasumigaseki, 3-chome, chiyoda-ku, Tokyo, Japan.	Device for scrapping off deposits from internal surfaces of elongated tubes.
152112	17-11-1980	Do.	Granulation process and apparatus thereof.

1	2	3	4
153149	20-11-1980	Mitsui Toatsu chemicals Inc. & Toyo Engineering Corpn. No. 2-5, Kasumigaseki 3-Chome, Chiyoda-ku, Tokyo Japan.	Process and apparatus for granulating solidifiable fluid materials.
155958	07-01-1982	Do.	Continuous bulk polymerization reactor.
158401	25-07-1983	Do.	Counter current washing tower and a method of obtaining a solid free slurry of a synthetic resin by washing counter currently with washing liquid in the said countercurrent washing tower.
146320	30-05-1977	Mobil Tyco Solar Energy Corporation, 16-Hickory Drive, Waitham, Massachusetts, U.S.A.	Method and apparatus for reducing residual stresses in crystals while the crystals are being pulled from a melt.
147431	30-04-1977	Do.	Apparatus for crystal growth.
149172	08-08-1978	Moteurs Leroy-Somer Boulevard Marcellin Leroy 16004, Angoulême, France.	Diffuser for hydro-electrical power plant and hydro electrical power plant fitted with this diffuser.
159244	30-01-1984	National Research Development Corporation, 22, Zamroodpur Community Centre, Kailash Colony Extension, New Delhi-110048, (India).	An improved heart valve assembly.
155415	14-07-1981	Nederlandse Centrale Organisatie Voor Toegestapt-Natuurwetenschappelijk Onderzoek, Juliana Van Stolberglaan 148, The Hague, Netherlands.	An apparatus for controlling the air fuel ratio in a fuel supply system for combustion engines.
161555	12-08-1983	Do.	Apparatus for the use of gas as secondary diesel engines.
143183	02-11-1975	Nico-Pyrotechnik Haans-Jurgen Diederichs KG, 2077 Trittau. Bei der Feuerwerkerei, West Germany.	Impact detonator.
143896	24-05-1976	Do.	Do.
160231	21-07-1982	Nippon Kokan Kabushiki Kaisha, 1-2, Marunouchi, 1-chome, Chiyoda-ku, Tokyo, Japan.	A horizontal or a non-steeply inclined rotary furnace for smelting reduction or refining of metal alloys.
145616	04-08-1977	Nitto Boseki Co. Ltd., No. 1, Aza Higashi, Gonomo, Fukushima-shi, Japan.	Method and apparatus for manufacturing glass fibres using deflectable air curtain.
145993	04-08-1977	Do.	Method and apparatus for draw forming glass fibres.
154126	19-12-1981	Do.	Glass fiber forming unit.
156008	03-11-1981	Do.	Method of manufacturing glass fibers.
149743	04-05-1978	Okuli Oy 37800, Toijala, Finland.	Cardboard strip made up of consecutive package blanks.
153978	17-05-1982	Omark Australia Ltd., Waddikee Road, Lonsdale in the state of South Australia, Australia.	Combination of a rail sleeper and fastening clip for fastening the foot of a rail to a sleeper.
150589	25-08-1978	Outokumpu Oy, Outokumpu, Finland.	A process for producing pellets of pre-determined size from a finely divided material and an apparatus for carrying out the process.
161144	05-06-1985	Do.	A method of an apparatus for batch preparation and feeding into smelting process.
145896	20-04-1976	OY E Sarlin AB, Kairoksala, Finland	Centrifugal Pump.
145946	24-04-1976	Do.	Pump unit for immersion in a liquid.

1	2	3	4
159918	11-05-1984	OY Starplate Ltd., Kivitorpantie 3, 00300 Helsinki, Finland.	Junction plate to form a polygonal geodesic structure.
143884	05-08-1975	Palitex Project Co., GmbH, Weeserweg 8, 4150, Krefeld 1, West Germany.	A double or two for one twisting spindle.
149028	07-10-1977	Do.	Two-for-one double twisting machine.
149198	10-10-1977	Do.	Two-for-one twisting machine.
151203	18-01-1979	Do.	Apparatus for use with a two-for-one twisting spindle for the taking up of and tension free release of a single pre-determined length of thread or the like.
152211	11-04-1980	Do.	A thread brake.
152223	23-07-1979	Do.	A thread take-up assembly.
152267	27-07-1979	Do.	Device for the de-activation and re-activation of textile apparatus more especially a two-for-one spinning spindle.
153910	02-08-1980	Do.	Thread storage for a two-for-one twisting spindle or spinning spindle.
154484	10-12-1981	Do.	Carrier device for at least two twister or bobbins tubes.
154584	16-04-1981	Do.	Thread brake.
154894	05-06-1981	Do.	Apparatus for the controlled feeding and taking off of a thread into or out of a thread treatment section.
155078	21-07-1981	Do.	Pull-off aid for drawing threads from at least two bobbins.
155371	13-05-1982	Do.	Two-for-one twisting spindle.
155877	31-05-1982	Do.	Apparatus for use in the withdrawal of yarn from a yarn package.
156470	30-07-1982	Do.	A thread guide for drawing threads overhead from two yarn bobbins disposed coaxially one above the other.
156693	20-01-1982	Do.	Pneumatically threadable yarn brake and a two-for-one twisting spindle equipped therewith.
146786	24-05-1977	Pandrol Limited, 9 Holborn, London, EC1N 2NE, England	A railway sleeper and a railway rail and fastening assembly employing it.
148053	25-01-1977	Do.	A railway rail and fastening assembly.
148584	28-01-1977	Do.	A device for removing rail clips from a railway rail and fastening assembly.
146172	12-11-1976	Patpan Inc. Panama City, (Panama)	Apparatus for vacuum drying flat pieces.
149461	17-01-1978	Patpan Inc., C/o Icana, Gonzalez Ruiz and Aleman, Calle Aquilino de la Guardia No. 8, Panama City, Panama.	Apparatus for drying flat articles of porous material under vacuum.
151409	07-05-1980	Do.	Apparatus for drying moist skins.
157067	09-03-1981	Paul Legueu 85, Avenue De Mazy 44380, Pornichet, France.	Light armoured reconnaissance and vehicle.
143784	18-03-1976	Paul Opprecht, 8962, Bergdietikon, Switzerland.	Method and apparatus for seam welding overlapped edges.
149471	17-05-1978	Do.	Transport installation for can bodies for a fully automated resistance welding machine.

1	2	3	4
161333	31-08-1983	Personal Products Co., Milltown, New Jersey, U.S.A.	An embossed thin protective absorbent liner for undergarments.
161891	20-09-1983	Do.	A panty liner to be worn in the crotch portion of an undergarments.
150328	27-12-1979	Polysar Limited, Sarina, Ontario, Canada.	Apparatus for the sampling and dilution of a sample from a fluid stream.
152429	27-12-1979	Do.	An apparatus for obtaining from a polymerization reactor a sample of polymer.
145128	05-11-1975	Proceq S. A. Reischbachstrasse 57/59, Zurich, Switzerland.	Apparatus for testing hardness of materials.
144968	25-10-1976	R. A. Lister & Co. Ltd., of Long Street, Durdley, Gloucestershire, GL 11, 4 RS, England.	Improvements in or relating to a piston for an internal Combustion engine.
159950	30-06-1983	RCA Corporation, 30, Rockefeller plaza, New York, 10020, U.S.A.	Vertical lift device and method for fabricating same.
161256	26-05-1984	Rimrock Corporation, 1700 Rimrock Road, Columbus, U.S.A.	Automatic lading apparatus.
161346	28-05-1984	Do.	Control system for automatic lading apparatus.
154639	23-02-1980	Robert Heary Abplanalp, 10, Hewett Avenue, Bronxville, Westchester County, New York, U.S.A.	Method and apparatus for the mass production of a gasket bearing aerosol mounting up.
155677	29-02-1980	Do.	Gasketed mounting cups for aerosol dispensing containers.
161345	15-12-1983	ROCAMAT, Rue Bellini, 92800 Puteaux, France.	Device for cutting blocks of materials like granite, marble stone.
156307	01-06-1982	Rolf Peddinghaus Deterberger Strasse 25, D-5828, Ennepetal West Germany.	Improvements to parallel jaw engineering vice.
159072	23-07-1983	Do.	Parallel vice with main body, guide rail, spindle and an arrangement for avoiding end pressures.
157957	26-11-1982	Rosemount Inc, 12001 West 78th Street Eden Prairie, Minnesota 55344, U.S.A.	An apparatus for conveying fluid pressures for use with a differential pressure transducer.
155939	17-06-1981	Royal Ordnance Plc. Griffin House, 5th strand London WQ 2N, 5BB, England.	Track link for a tracked vehicles.
156151	27-12-1979	Do.	Improvements in or relating to breech mechanisms.
157162	03-07-1981	Do.	A fire arm.
154265	21-01-1982	Ruti-Te Strake BV Deurne, The Netherlands.	Device for inserting a pick into the weaving shed of a pneumatic loom.
155116	04-01-1982	Do.	Shuttleless weaving machine.
159381	19-12-1983	Ruti-Te Strake, B. V. Dr. Huub Van Doorneweg 26, 5753 PM Deurne, The Netherlands.	Shuttleless weaving machine comprising means for removing faulty weft threads from the weaving shed.
160692	30-05-1983	Do.	Shuttleless weaving machine comprising a detector for tracing defects on weft threads and means for removing same.
159430	07-12-1983	Santanu Roy, 13 Nanda Kr. Ch. Lane, Calcutta 700 006, West Bengal, (India).	A novel apparatus for effective utilisation of a solar power.
161348	27-06-1984	Do.	Improvements relating to a wind machine for generating power from wind.

1	2	3	4
144900	11-03-1976	Satake Engineering Co. Ltd., 19-10, Ueno-1 chome, Taito-ku, Tokyo, Japan.	Roll type huller.
154182	05-01-1980	Do.	Automatic control system for hulling machine.
160115	19-11-1983	Do.	Grain handling system.
160116	03-12-1983	Do.	Grain mixing system.
145587	26-02-1976	Saunders Valve Co. Ltd., Cwmbrau, Gwent up NP 4 3XX, Wales.	Fluid flow control valves.
148394	25-01-1977	Do.	Method of forming an injection moulded functional lining on a valve body.
157291	29-12-1981	Scal Societe De Conditionnements En Aluminium, 47 rue de Monceau, 75008, Paris.	Machine for manufacturing metallic strips or bands of aluminium or an aluminium alloy.
159792	21-06-1983	Schulmberger Ltd., 277 Park Avenue, New York, New York 10017, U.S.A.	Well-logging tool.
159793	01-07-1983	Do.	Apparatus for determining the quality of a cement bond relative to a casing in a bore-hole.
145975	21-09-1976	Schubert & Salzer Maschinenfabrik Aktiengesellschaft, Friedrich Ebert-Strasse, 84, 8070 Ingolstadt, West Germany.	Method and apparatus for automatically rendering fleeces slivers, rovings and the like uniform drafting.
147767	12-07-1977	Do.	Apparatus for winding a thread delivered at a constant speed.
147832	24-05-1977	Do.	Apparatus for opening and mixing bales of fibres.
147896	19-08-1977	Do.	Apparatus for separating contaminants from fibrous material in particular from cotton fibrous material.
147897	25-10-1977	Do.	Method and apparatus for cleaning fibrous material.
150293	17-06-1978	Do.	Method and apparatus for producing thread in open-end spinning apparatus.
151024	16-11-1978	Do.	Apparatus for making a joint in a bound yarn.
151443	17-10-1979	Do.	Combing machine.
151901	23-03-1979	Do.	Apparatus for separately stringing up individual open-end spinning units.
152097	28-04-1979	Do.	Apparatus for controlling the bobbin drive of a speed frame.
152163	16-01-1980	Do.	Apparatus for producing a bound yarn.
152558	05-04-1980	Do.	Housing for receiving a thread monitoring unit, which comprises a thread tension sensor.
152763	04-08-1980	Do.	Open-end spinning apparatus.
152803	14-10-1980	Do.	A device for extracting impurities from fibre material in particular cotton.
152871	21-12-1979	Do.	Control apparatus for a fibre feed device in an open-end spinning equipment.

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152879	23-07-1980	Schubert & Salzer Maschinenfabrik Aktiengesellschaft, Friedrich Ebert-Strasse 84, 8070, Ingolstadt, West Germany.	Method and apparatus for producing a bound thread in incorporating therein at least one thread join.
154202	20-02-1981	Do.	Device for lifting a tubular member from a spindle of a textile machine.
154211	26-05-1981	Do.	Apparatus for effecting a thread join in a bound yarn.
154353	14-10-1980	Do.	Method and apparatus for opening and mixing fibre bales.
154429	26-05-1981	Do.	Device for sealing off a rotor guide bore of a rotor housing.
155398	12-10-1981	Do.	Pivotable spindle mounting particularly for an apparatus for spinning bound yarn.
155959	28-01-1982	Do.	Apparatus for feeding tubes to and removing packages from spinning machines and twisting machines.
156238	16-06-1982	Do.	Method and device for winding a newly joined thread into a tube newly inserted into a winding device.
156433	16-06-1982	Do.	Pivotable suction tube for receiving thread from a bobbing.
156611	10-06-1982	Do.	A device for performing a method of placing tubes on pins of a conveyor belt for making textile yarn.
157025	05-04-1983	Do.	Pneumatic gripping device.
157735	28-05-1982	Do.	Overhung mounted, rotatable centering spindle.
159150	23-02-1983	Do.	Method of producing a thread on an open-end spinning machine and an open-end spinning machine for carrying out the method.
159261	23-02-1983	Do.	Suction duct for textile machines.
159262	28-02-1983	Do.	Separation device for an open-end spinning apparatus with a housing.
159269	05-04-1983	Do.	Open-end spinning rotor.
160080	03-02-1983	Do.	Method and apparatus for producing an improved quality of spun yarn by joining a thread in an open-end spinning apparatus.
160694	20-08-1983	Do.	Open end spinning rotor obtained by non-cutting shaping work and a method of producing it.
149418	11-10-1977	Sealed Power Corporation, 2001 Sanford Street Muskegon, Michigan, 49443, U.S.A.	A slip latch in combination with a circular spacer expander for use in a piston oil control ring.
151068	16-03-1979	Sealed Power Corporation, 100 Terrace Plaza, Muskegon, State of Michigan 49443, U.S.A.	Pipe joints.
151744	25-09-1979	Do.	A substantially fluid-tight metal to plastic pipe joints.
152199	15-03-1979	Do.	A parted annular sealing ring and method of the manufacture.

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153653	15-06-1981	Do.	A transmission fluid filter.
153886	15-05-1980	Do.	Arrangement for removably fastening a deformable member to a separate body.
155372	26-03-1981	Do.	Piston ring.
156187	07-09-1982	Do.	Mounting device for plastic workpieces.
143291	13-05-1975	Shell Internationale Research Maatschappij, B. V., Carel Van Bylandtlaan 30, The Hague, The Netherlands.	Apparatus for the gasification of finely divided fuels.
152816	22-11-1979	Do.	Apparatus for injecting particulate polymer into a pipeline hydrocarbons.
153671	21-01-1981	Do.	Exothermic reactor for use in the preparation of hydrocarbons from a mixture of hydrogen and carbon monoxide.
155455	16-09-1981	Do.	Apparatus for separating liquid gas mixture.
155911	07-04-1977	Do.	Riser with hood.
157357	26-11-1982	Do.	A vertical column for separating liquid from admixture with gas.
156957	13-09-1982	Shin-Etsu Chemical Co. Ltd., 6-1, Otemachi, 2-chome, Chiyoda-ku, Tokyo, Japan.	A vertical type polymerization reactor.
148257	14-10-1977	Showa Denko K. K., 13-9, Shiba Daimon, 1-chome, Minato-ku Tokyo, Japan.	Method for manufacture of waterblast high carbon ferrochromium shot.
156237	24-03-1982	Siddons Industries Limited, Research Road, Pooraka in the State of South Australia.	Furnace valve.
146637	20-12-1976	Siemens AG, Berlin & Munich, West Germany	Actuators for operating control devices.
149581	09-11-1978	Do.	Axial fan.
158361	30-03-1983	Do.	A heat sink for semiconductor elements.
159171	22-12-1983	Do.	Pressurisable container having a safety device for releasing excess pressure from a container.
160801	21-4-1982	Do.	Liquid ring vacuum pump for fluid media
162109	27-2-1984	Do.	A control device for valves.
150109	21-8-1979	Silver Seiko Ltd., 1-51, Suzuki-cho-Kodaira-shi Tokyo, 187, Japan.	Needle selection mechanism in hand operated knitting machine.
151724	23-08-1979	Do.	Improvement in a hand operated knitting machine of the type of having a single bed and a plurality of knitting needle.
152214	28-07-1980	Do.	Collapseable knitting machine.
154267	28-06-1979	Do.	A fabric manipulating device for manipulating a knitted fabric on a knitting machine.
145354	10-03-1976	Single Buoy Moorings Inc., Fribourg, 12 Rue Abbebovet, Switzerland.	Floation structure.
145830	21-05-1976	Do.	Single-point mooring buoy.
159039	09-06-1983	Single Buoy Moorings Inc., 5, Route de Fribourg, P. O. Box 124, CH-1723, Marly, Switzerland.	Mooring system for maintaining a buoyancy body in position in relation to another body.
160693	09-06-1983	Do.	Device for maintaining a buoyant body in position in relation to another body.

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150004	12-09-1979	Sintokogio Ltd., Toyota Building, 7-23, Meieki-4-chome, Nagoya, Japan.	Molding machine.
150025	25-07-1979	Do.	Molding apparatus.
150110	22-08-1979	Do.	Method of and apparatus for molding a drag mold part.
152826	09-12-1980	Do.	Molding machine.
148054	09-02-1977	Societe D' Etudes De Machines Thermiques S. E.M.T. 2, Quai de Seine, 93202, Saint Denis, France.	Improvements in or relating to a device for damping pressure waves in an internal combustion engine fuel injection system.
156683	24-08-1982	Societe De Vente De L' Aluminium Penchincy, 23 bis, rue Balzac 75008, Paris, France.	A device for the treatment of a stream of aluminium or magnesium-based liquid metal or alloy during its passage.
150709	14-05-1979	Societe Dite A. C. M. A. T., Ateliers De Constructions Mechaniques De L' Atlantique of Le Point du Jour 44600 Saint Nazaires, France.	Air-trans portable highly autonomous cross-country medical vehicle.
151075	14-05-1979	Do.	Transfer box for a motor vehicle.
151682	13-09-1979	Do.	Automobile vehicle having a chasis integral with a cab.
152021	14-05-1979	Do.	Highly autonomous cross-country work shop and servicing van.
145575	28-07-1976	Societe Generale De Construction Electric Ques Et, Mechaniques Alstom SA, 38 Avenue Kleber, 75784, Paris, Cedex 16, France.	Method and device for separating and compacting flocculated solids in a fluid sludge.
157080	21-10-1982	SPBP Tea Industries Pvt. Ltd., 20 British Indian Street, Calcutta-700 069, West Bengal, (India).	A tube of plastic material.
161994	12-01-1984		Dispensers for liquids and powdery substances.
162161	12-09-1984	Do.	A pilfer-proof closure for bottles containers and the like.
162162	12-09-1984	Do.	A pilfer-proof thermoplastic container.
153350	10-06-1981	Sperry Corporation 1401, Crooks Road, Troy Michigan 48084, U.S.A.	An electrically controlled remote controller for use in piloting the performance of a hydraulic control valve.
153744	10-06-1981	Do.	A Hydraulic system such as power steering system for automotive vehicles.
154472	10-06-1981	Do.	A hydraulic power transmission system.
154493	14-05-1982	Do.	A variable grain servo controlled directional valve for controlling flow of remotely positioned hydraulically operated devices.
155800	14-05-1982	Do.	A Hydraulic control system particularly to hydraulic circuit for actuators such as found on cranes.
155803	01-06-1982	Do.	A method of making a rotor of a fluid energy translating device such as pumps and motors
156398	01-06-1982	Do.	Fluid pressure energy translation device.
156803	14-05-1982	Do.	A hydraulic control system for actuator such as used on earth moving equipment including excavator.

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152729	08-02-1980	Stamicarbon B. V. P. O. Box No. 10, Gleen, The Netherlands.	Process for making polymer filaments of high tensile strength and modulus.
154059	30-03-1981	Do.	Device for the spraying of a liquid by means of a gas.
155945	17-03-1977	Do.	Device for spraying liquids.
154591	10-09-1980	Stone & Webster Engineering Corporation, 245, Summer Street, Boston, Suffolk County, Massachusetts 02107, (U.S.A.)	A solid gas separator.
148420	01-06-1978	Stopine Aktiengesellschaft Baarerstrasse 43, 6300 Zug Switzerland.	Sliding gate nozzles and a metallurgical vessel containing such nozzles.
148547	01-06-1978	Do.	A sliding gate nozzle for vessel used for pouring metals.
149113	01-06-1978	Do.	Sliding closures arrangement for a discharge passing in the bottom of a casting ladle for other container for molten metal.
151010	17-12-1979	Stopine AG, Postfach CH-5300 Zug/Switzerland.	Improved slide valve for the injection of material for use in the outlet of a metallurgical vessel.
152124	21-03-1981	Stopine AG, CH-6340 Baar, Zugar, Str. 76 a, Switzerland.	Breech-plate unit for a sliding lock.
152260	17-12-1979	Stopine AG, Postfach CH 6300 Zug 2, Switzerland.	Improved three-plate slide valve closure for liquid melt containers.
151295	08-05-1980	Stopine AG, Zugerstrasse 76a, CH-6340, Baar, Switzerland.	Improvements in or relating to turning slide gate or closing device for metallurgical vessels.
154596	15-05-1981	Do.	Turnable slide lock for metallurgical crucibles ladles and like vessels.
156425	24-06-1982	Do.	Rotating slide closure for a melting container.
157193	26-04-1982	Do.	Sliding gate valves for metallurgical vessels.
155697	28-11-1981	Prof. Sudhir Kumar Dhar, La Villa Rouge, J. C. Mallik Road, P. O. Dhanbad-826001, (India).	Low friction gears.
151672	28-05-1979	Sulzer Brothers Ltd., CH-8401, Winterthur, Switzerland.	Means for coupling a hand drive to a rotatable shaft.
154542	02-02-1981	Sumitome Electric Industries Ltd., No. 15, Kitahama, 5-chome, Higashi-ku, Osaka-shi, Osaka, Japan.	Rubber and plastic covered cable cross-linking device.
157386	14-10-1982	Do.	Process for producing heat resistant aluminium alloys wires for conducting electrolysis.
156303	19-02-1983	Tata Engineering and Locomotive Co. Ltd., Jamshedpur-831 010, Bihar, India.	Coupling device.
157102	04-05-1983	Do.	Coupling device for connecting two ends of two shafts.
157979	04-05-1983	Do.	Device for coupling pipes.
147587	11-05-1977	TESA S. A. Rue Bugnon 38, 1020 Renens, Switzerland.	Adjustable fork gauge.
149302	23-06-1977	Do.	Micrometer head for internal measurement instrument.

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156995	05-08-1982	The Babcock and Wilcox Company, 1010, Common Street, New Orleans, Louisiana 70112, U.S.A.	An apparatus for removing deposits from highly heated surfaces.
156996	05-08-1982	Do.	Device for dislodging an adherent deposit from the heated area of a heat exchanger.
152726	26-10-1979	The B. F. Goodrich Company, 277 Park Avenue, New York 10017, U.S.A.	Monitoring system for monitoring the occurrence of a plurality of events in a cyclical process.
144724	28-04-1975	The Goodyear Tire & Rubber Company, 1144 East Market Street, Akron, Ohio, U.S.A.	Multi-ribbed, power transmission belt and method of making said belt.
152870	05-11-1979	The Jacobs Manufacturing Co. Bloomfield, Country of Harford, Connecticut 06002, U.S.A.	Engine braking system of a gas compression relief type.
153450	01-12-1980	Do.	Engine braking apparatus of the gas compression release type.
157617	24-12-1982	The Jacobs Manufacturing Co., 22, East Dudleytown Road, Bloomfield, Connecticut, U.S.A.	Engine retarding system.
146049	22-07-1976	The Nowall Engineering Company Limited, Oundle Road, Peterborough, PE 2, CBL, England.	Position detectors for measuring relative movement and/or displacement.
147591	14-12-1977	Tye Secretary of State for Defence etc., Whitehall London, SW1A, 2HB, England.	Improvements in or relating to variable ratio transmission systems.
158523	13-08-1982	Do.	A wear producing projectile with forward end and rearward end.
159479	27-06-1983	Do.	Liquid crystal devices.
160718	16-11-1984	The Tata Iron & Steel Co. Ltd., Jamshedpur, Bihar (India).	An improved reinforcement bars and process for producing the same.
150237	03-08-1979	The Western States Machine Company, 1798, Fairgroove Avenue, Hamilton Ohio-45012, U.S.A.	Power operated loading gate for centrifugal machines incorporated at auxiliary drive devices
150388	28-11-1979	Do	Cyclical centrifugal machine with improved gyratory suspension head structure.
152700	04-12-1979	Do.	A centrifugal apparatus including a rotary centrifugal basket and means for delivering a flow of charge material into the basket.
153733	20-01-1981	Do.	Improvement in or relating to a continuous centrifugal machine.
159322	13-06-1983	Do.	Mechanism for latching an axially displaceable rotary part to a concentric rotary part.
149844	17-03-1978	Trutzschler GmbH & Co., Kg. Duvenstrasse 82-92, D-4050, Monchengladbach 3, West Germany.	Carding machine.
149933	29-08-1979	Do	Guiding means for collecting fibre naps from textile fibre draw rollers and forming rovings therefrom.
151140	23-07-1979	Do.	A device for opening of several textile fibre bales.
151396	16-07-1979	Do.	An apparatus for the opening of several textile fibre bales.
154981	13-01-1982	Do.	Device for separation of foreign body being impurities from cotton fibre flanks or flocks.

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156311	14-05-1982	Do.	Device for controlling and regulating a carding machine.
157387	30-11-1982	Do.	A device and method for manufacturing mixed textile fibres.
157759	14-01-1982	Do.	Device for opening and cleaning cotton waste.
158614	22-03-1983	Do.	Method of processing fibres for spinning and apparatus therefor.
160935	10-01-1984	Do.	Feed chute for handling fibre flocks in a carding machine.
143397	14-05-1976	Tuomp Halonen OY 37800, Toijala, Finland.	Method for uniformly heating a flowing substance, such as a liquid or gas.
158148	21-12-1983	Ube Industries Limited, 12-32, Nishimotocho 1-chome, Ube-shi, Yamaguchi, Japan.	Improved precalciner for cement raw meal.
159982	10-04-1984	Do.	Cyclone.
160930	16-03-1984	Do.	Furnace operated by combustion of pulverized coal.
160970	16-03-1984	Do.	A pulverized coal feeder.
158949	20-04-1982	Ugine Aciers, 10 rue du General FoY-75008, Paris, France.	Apparatus that enables metals or alloys to be cast continuously in the form of bars or strips.
147475	16-05-1977	Union Carbide Corp., 270 Park Avenue, New York, 10017, State of New York, U.S.A.	A foam applicator head for application of foam to a substrate.
149328	12-08-1977	Do.	Apparatus for refining molten metal.
154822	16-06-1981	Do.	Apparatus for detecting solidification in a mixed phase container.
155733	21-01-1977	Do.	Liquid-liquid containing trays adapted to be combined into a liquid-liquid contacting column.
157630	16-12-1981	Do.	Method and apparatus for applying foam to open-weak substrates.
147610	14-06-1977	United Technologies Corporation, 1 Financial Plaza, Hartford Connecticut, 06101, U.S.A.	A gas turbine.
151737	03-08-1979	Do.	A control system for a wind turbine having a wind driven rotor.
153214	02-03-1981	Do.	Wind turbine blade pitch control system.
153477	06-04-1981	Do.	Wind turbine including drive train.
154454	07-12-1979	Do.	Method for fabricating wind turbine blades.
154485	22-12-1981	Do.	Blade pitch angle control device for a wind turbine generator.
154615	14-10-1981	Do.	Improvements in or relating to a method of manufacturing a filament round article.
154875	11-05-1981	Do.	Wind turbine having a hub or rotor with a plurality of air-foil blades mounted thereon.
156497	20-07-1982	Do.	A method and apparatus for manufacturing articles such as for example article of air-foil cross-sectional shape by filament winding

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156973	19-10-1982	United Technologies Corporation, 1 Financial Plaza, Hartford, Connecticut, 06101, U.S.A.	A method of forming a tapered filament wound article.
157498	28-01-1983	Do.	A solid fuel burning stove.
148761	08-08-1977	USS Engineers and Consultants Inc. 600 Grant Street Pittsburgh, State of Pennsylvania, U.S.A.	A nozzle for preventing alumina building during continuous casting of aluminium-killed steel
149715	20-08-1975	Do.	Method and apparatus for locating improperly positioned or bent rolls.
155550	03-10-1975	Do.	Slid able gate mechanism.
156694	27-02-1982	Do.	Improvement in the pouring of molten metals
151440	25-07-1979	Voest Alpine AG, Friedrich Str. 4, 1011, Vienna, Austria.	Method and apparatus for the gasification of coal.
153640	29-12-1979	Do.	Hollow cutting head of cutting machine.
155284	11-01-1983	Do.	Device for drying of solid materials.
155635	19-03-1981	Voest Alpine AG, Werksgelände A-4010, Linz, Austria.	A turbine assembly.
155873	29-04-1982	Do.	Device for drying coal.
157394	02-12-1981	Voest Alpine AG, Werksgelände 410, Austria.	Discharge assembly for removing green pellets out of a pelletizing device
157531	12-10-1982	Do.	Movable cutting machines.
161839	23-12-1984	Do.	Movable supporting frame for supporting the roof in underground cavities.
162122	30-03-1984	Do.	Apparatus for spraying the bits and or the facing with pressurized liquid as well as apparatus for reforming this process.
157895	21-10-1982	Voest Alpine AG, Veb Schwermaschinen etc. Werksgelände A-4010 Linz and DDR-3011, Magdeburg, GDR.	Process and apparatus for producing cement.
143325	22-11-1975	Wacker Chemitronic Gesellschaft Fur Elektronik Grundstoffe mbH. Johannes Hes, Strasse 24, 8263, Burghausen, West Germany.	Process for producing novel silicon crystals.
146196	18-01-1977	Werkzeugmaschinen Oerlikon-Buehrle AG., Birchstrasse 155, 8050 Zurich, Switzerland.	Valve means associated with the tripple valve of a graduated release air brake, for controlling the pressure in a reservoir.
147277	17-04-1978	Do.	Automatic load-department air brake.
148776	23-08-1978	Do.	Three pressure control valve for an indirectly acting compressed air brake.
148777	23-08-1978	Do.	Control valve for an indirectly acting compressed air brake of type used in rail vehicles.
145417	23-10-1976	Westinghouse Electric Corporation (WEC), Westinghouse Building, Gateway Center, Pittsburgh, Pennsylvania-15222, U.S.A.	A method of producing homogeneous sintered 2 No. non-linear resistors, sintered resistors body obtained thereby and lightening arrester containing the same.
148055	07-04-1977	Do.	A rotor assembly for a gas turbine engine
148367	29-11-1977	Do.	Combustion apparatus for a gas turbine.
152440	16-09-1980	Do.	Heat exchangers.
155658	15-02-1982	Do.	Catalytic combustion system for stationary gas turbine.

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155659	15-02-1982	Westinghouse Electric Corporation (WEC) Westinghouse Building, Gateway Center, Pitts- burgh Pennsylvania-15522 U.S.A.	Improved catalytic combustion system for a stationary combustion turbine having a transition duct mounted catalytic element.
155686	29-01-1982	Do.	Gas turbine combustors.
155701	15-02-1982	Do.	A catalytic combustion system for a stationary gas turbine.
158581	09-01-1984	Do.	Honeycomb labyrinth seal for steam turbines.
158893	06-10-1983	Do.	Air foil blades for a cooled first stage rotor of a land based combustion turbine.
159234	20-07-1982	Do.	Apparatus for the detection of anomalies in rotating members.
160699	06-10-1983	Do.	Process and apparatus for the manufacture of scribed ferromagnetic sheets.
160981	04-01-1983	Do.	A steam turbine with superheated blade disc cavities.
161065	08-03-1984	Do.	A couple for the melting of metal scrap and metal chips.
161381	03-01-1982	Do.	Apparatus for growing crystalline bodies, in particular a dendritic web.
161622	06-10-1983	Do.	Apparatus and process for manufacturing a scribed ferromagnetic sheet.
161924	25-09-1985	Do.	Apparatus for drawing dendritic silicon web from silicon melt.
161993	29-10-1983	Do.	A blade assembly and method of forming same.
147124	11-03-1977	William Lister, 36 Rabaul Street, Moorooka, Queensland 4105, Australia.	A pneumatic percussion hammer.
147343	27-06-1977	Do.	Rock-drilling bit for percussion hammers.
150150	09-08-1978	Winfried Jean Werding, 77 Avenue du Gene- ral Gulsan 1009, Pully, Switzerland.	Spray nozzle for dispensing liquids.
159687	05-11-1983	Do.	Device for thrust control by means of tur- bulences.
159095	21-09-1983	Xerox Corporation, Xerox Square, Rochester, New York, U.S.A.	Copy finishing apparatus.
149704	15-12-1978	Yokogawa Electric Works Ltd., 9-32, Nakach 2-chome, Musashino-shi, Tokyo, Japan.	Servo-system.
148086	16-03-1978	Youngflex S. A. 1, Rue Fries, 1701, Fribourg, Switzerland.	A cushion support structure for incorporating in a seat.

COMMERCIAL WORKING OF PATENTED INVENTIONS

ELECTRICAL LIST NO. III.

The following patents in the field of Electrical Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under section 146 (2) of the Patents Act, 1970 in respect of calendar year 1988 generally on account of want of request for licences to work the patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a licence for the purpose.

Patent No.	Date of Patent	Name & Address of the Patentee	Title of the invention
157805	20-3-1982	AE & CL LTD, 16th Floor, Office Tower, Carlton Centre, Commissioner street, Johan- nesburg, Transvaal, Republic of South Africa.	An apparatus for testing the resistance of AC operable detonating modules.

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143932	16-2-1976	Ajitkumar Bhattachariya, Block No. 9/5, Citizens co op. Hsg. Society, 103 Manicktola Main Road, Calcutta 700 054, WB, India.	A combustion such as employed in an automobile dynamo and like and like dynamo and method of manufacture thereof.
153964	4-6-1981	Aluminium De Grece, 4 rue de l'Academic Athens, 104, Greece.	Apparatus for introducing alumina in a tank for producing aluminium by electrolysis of alumina dissolved in molten cryolite.
145327	30-5-1975	Aluminium Pechiney 28 Rue de Bonnel, 69003 Lyon, France.	Apparatus continuously determining the internal resistance of an electrolysis cell.
151875	11-2-1980	Do.	A process for production of aluminium by igneous electrolysis of a solution of alumina in cryolite are Tanks and an apparatus for the same.
158317	1-10-1982	Do.	A device for the precise adjustment of the anode plane of an electrolysis cell for the production of aluminium.
159845	29-4-1983	Do.	Detachable arrangement for spotfeeding alumina to an electrolytic tank for the production of aluminium.
144823	7-4-1976	Asahi Glass Co. Ltd., No. 1 2, Marunouchi 2 chome, Chiyoda ku, Tokyo, Japan. *	Electrolytic cell.
155085	13-11-1981	Do.	Alkali metal chloride electrolyzing cell.
157592	16-4-1982	Do.	Improved filter press type electrolytic cell.
153536	24-12-1980	Asahi Kasei kogyo Mabushiki Kaisha, 2-6, Dojimabama, 1-chome, kitaku, Osaka-shi, Osaka, Japan.	A method for the preparation of a hydrogen-evolution electrode.
154740	11-12-1980	Do.	A method for the manufacture of an alkali metal hydroxide, chlorine gas and hydrogen gas.
161390	15-11-1983	Do.	An improved hydrogen evolution electrode and a method of producing the same.
146424	13-4-1977	Badische Corporation Williamsburg, State of Virginia, 23185, U.S.A.	Integral electrically-conductive textile filament.
157611	5-10-1982	British Railways, 222 Marylebone Road, London N.W. 1, England.	Control system for controlling the passage of vehicles.
48348	16-2-1978	Chlorine Engineers Corp. Ltd., No. 2-5, Kasumigaseki, 3-chome, Chiyoda-ku, Tokyo, Japan.	Bipolar electrode.
151251	2-3-1978	Do.	Bipolar electrode and method for producing the same.
152104	7-3-1980	Chloride Group Ltd., 52, Grosvenor Gardens London, SW1W 0AU, England.	Electric batteries.
152628	8-5-1980	Chlorine Group Limited, 52 Grosvenor Gardens, London, SW1W 0AU, England.	Recombinant lead acid electrical storage batteries.
152648	8-5-1980	Do.	A multicell electric storage battery.
152669	7-3-1980	Do.	Lead acid electric storage battery.
152679	8-5-1980	Do.	A method of making a recombinant lead acid electric storage battery of cell.
154232	12-11-1981	Do.	Vent for electric storage battery.

1	2	3	4
147919	19-4-1978	CHUGAI DENKI KOGYO KABUSHIKI KAISHA, 13/3 Nihonbashi-Kayabacho, 2-chome, chuo-ku, Tokyo, Japan.	A method of making improved Ag-metal oxides electrical contact materials.
149830	25-7-1978	Do.	Apparatus for making a bi-metallic electrical contact.
156490	21-5-1982	Do.	Method of preparing improved electrical contacts made of silver alloy.
147069	22-12-1976	CONTRA VES A.G. Schaffhauserstrasse, 580, 8052, Zurich, Switzer land.	A combination of a vehicle and an electrical power generating set.
155263	8-8-1980	Degussa AG. Frankfurt/Main 6450 Hanau 1, Postfach, F.R.G.	A process for producing an electrical contact based on silver and tin oxide.
155846	4-12-1981	Degussa AG. 9, Weisstrauenstrasse, Frankfurt/Main, F.R.G.	Material for electrical contacts.
143183	12-7-1976	DR. C. OTTO & COMP. GMBH. 463, Bochum, West Germany.	Battery of coke ovens with regenerative heat exchange.
160151	5-1-1984	Energy Conversion Devices. 1675 West Maple Road, Troy, Michigan, 48084, USA.	Electronic matrix arrays and method of for making parallel preprogramming or field programming the same.
148239	20-2-1978	Ferranti Limited. Hollinwood, Lancashire, England.	Data processing system.
148642	16-3-1978	Ferranti Ltd., Bridge House, Park Road, Gatley, Cheadle, Cheshire SK8, 4Hz, England.	Data Processing apparatus.
158642	22-4-1983	Fisher Controls International, Inc., 7711 Bonhomme, Clayton, Missouri 63105, U.S.A.	System for controlling the mechanical position of a controlled device.
144230	5-10-1976	General Electric Company, 1, River Road, Schenectady 5, New York, USA.	A prime mover control system.
144647	27-10-1976	Do.	Apparatus for collecting pyrolysates from a gas cooled dynamoelectric machine.
145970	8-6-1976	Do.	Reactor core.
146133	3-7-1976	Do.	Gas cooled flux shield for dynamo electric machine.
153617	27-3-1981	Do.	An electrical capacitor electrode foil method of manufacturing the same and an electrical capacitor having such foil.
154216	24-6-1981	Do.	Electric power supply system more particularly to power supply for electrically propelled traction vehicles.
156661	4-2-1982	Do.	An electrical capacitor.
157610	20-9-1982	Do.	Improved system for optical pattern recognition for reading out line patterns of arbitrary shape orientation and location from a pattern carrying medium.
158340	2-9-1982	Do.	System for providing protection for a high voltage transmission line.
159846	3-5-1983	GNB Batteries Inc, 1110 Highway 110, Mendota, Heights, Minnesota, 55118, U.S.A.	In and for the manufacture of storage batteries having battery cell elements, the method and apparatus for casing the metal straps on lugs of battery cells.
159847	3-5-1983	GNB Batteries Inc. Do.	Apparatus and method for casting straps on battery cell elements.

1	2	3	4
143928	18-9-1975	Gould Inc. 10 Gould Center, Rolling Meadows, Illinois 60008, USA.	Grid for use in lead acid, batteries and lead acid batteries containing the same.
146014	11-2-1976	Do.	Explosion proof gang vent for closing the cell opening of a storage battery.
146034	10-9-1975	Do.	Maintenance-free lead acid storage battery.
146035	10-9-1975	Do.	Lead acid battery.
152742	4-9-1980	Do.	A process for the preparation of a battery grid useful for supporting electrochemically active material in a lead-acid battery.
153747	3-9-1981	Do.	Vent plugs for batteries.
154278	1-10-1981	Do.	A maintenance free sealed lead acid cell.
154456	19-3-1981	Do.	A battery.
155459	20-10-1981	Do.	Lead-acid batteries for float applications.
156874	23-12-1981	Do.	Battery vent plug.
152783	19-9-1980	Hiroshi Ishizuka 19-2, Ebara 6-chome, Shinagawaku, Tokyo, Japan.	Improvements in an apparatus for electrolytic production of magnesium metal from its chloride.
159263	8-3-1983	Do.	Apparatus and method for electrolysis of $MgCl_2$.
149358	15-3-1978	Hitachi Ltd., 5-1, 1-chome, marunouchi, Ghyoda-ku, Tokyo, Japan.	Electrically insulated windings.
150299	3-3-1979	Do.	Zinc-oxide surge arrester.
152629	29-5-1980	Do.	Transparent flat panel speaker.
152962	28-5-1981	Do.	Process for producing electric insulated coils.
152963	25-9-1981	Do.	Insulated electrical coil.
153174	21-10-1981	Do.	Three phase and three-leg core of a core type transformer.
154797	27-8-1981	Do.	Apparatus for switching an operation of water wheel of pump water wheel.
155774	24-1-1983	Do.	Glass-molded semiconductor device.
156110	31-5-1982	Hitadhi Limited, 5-1, Munouchi, 1-chome, Chiyoda-ku, Japan.	Improvement in or relating to a SF_6 gas insulating electrical circuit breaker.
156767	12-10-1982	Do.	DC. motor for a vehicle.
156927	27-7-1982	Do.	On-loadtap changing transformer.
159235	27-7-1982	Do.	Surge arrester with by-pass gap.
159670	19-1-1984	Do.	Onload tap-changing transformer.
160109	17-8-1983	Do.	Device for verifying the insulation to ground of a disconnecting switch when breaking a charging current.
143408	27-8-1976	Hoechst AG. 6230, Frankfurt/Main 80, West Germany.	Electrolytic apparatus for production of chloride from aqueous alkali metal chloride.
152456	7-4-1980	Do.	Process for the dechlorination and cooling of the anolyte of the alkali metal chloride electrolysis by pressure release.
152756	5-3-1980	Do.	Electrolysis apparatus.
156139	25-3-1982	Do.	Electrolytic cell.

1	2	3	4
142302	23-9-1974	ICI LTDI, Imperial Chemical House, Mill bank, London SW1P, 3JF, England.	Electrolytic cells and its use in the manufacture of chlorine from brine.
157163	14-7-1981	Do.	Electrode for use in electrolytic cell.
150970	29-1-1979	Do.	Apparatus for selectively activating a plurality of electrical loads at pre-determined relative times.
151012	19-1-1979	Do.	An electrical ignition assembly.
152055	7-5-1979	Do.	Electrically actuatable igniter assembly and method of constructing such an assembly.
153548	1-1-1980	Do.	Fusehead igniter assembly.
156372	1-5-1981	Do.	Electrolytic cell of the filter press type.
158436	8-9-1982	ICI Plc. address as above	Electrically actuatable ignition assembly for a detonator.
158873	12-11-1982	Do.	Electrode structure.
158899	8-2-1983	Do.	A method of manufacturing an electrolytic cell.
159462	7-5-1983	Do.	Electrolytic cell containing gasket having projections and/or recesses.
159902	9-11-1982	Do.	Electrolytic cell of the filter press type.
160013	6-6-1983	Do.	A porous sheet diaphragm of an organic polymeric material for an electrolytic cell and the method of preparation thereof.
160767	7-3-1984	Do.	Electrolytic cell.
147951	6-7-1978	IMI Marston, Excelsior Limited, Wobaston Road, Ford houses, Wolverhampton WV10, 6QJ, England.	Electrical connector.
153553	7-1-1980	Do.	Impressed current cathodic protection anode assembly.
144193	6-10-1975	JOHANNES ZIMMER Ebentalerstrasse 133, 9020 Klagenfurt, Austria.	A device for treating a web of material.
158103	28-4-1982	John Stephen Nitschke, 324, East Second street, Perrysburg, Ohio, 43551, U.S.A.	Control system for monitoring and controlling the processing of glass sheets in a glass processing environment.
145446	17-1-1977	Johnson & Johnson, 501, George Street, New Brunswick, New Jersey, U.S.A.	An electrode providing electrical contact with a patents skin.
150864	1-1-1980	Do.	Grounding electrode.
145920	9-6-1976	Kirloskar Oil Engines Laxmanrao Kirloskar Road, Poona-411003, State of Maharashtra, India.	An electronic device for the reversal of the direction of rotation of an electric motor.
149034	17-3-1978	Kraftwerk Union AG, 4330, Mulheim (Ruhr), Wiesenstr, 35, F.R.G.	Method of bracing winding and turns of an electric machine.
154942	2-12-1981	Do.	Electrohydraulic adjusting drive for turbine valves.
158584	1-5-1984	Do.	Power station including an integrated coal gasification plant and organic chemical synthesis plant(s).
151734	25-9-1978	London Laboratories Ltd, 15, Lunar Drive, Wood bridge, Connecticut, 06525, U.S.A.	Method for electroless deposition of silver.

1	2	3	4
149498	23-6-1977	Maillefer S.A. Route du Bois, 1024 Ecublens, Canton of vaud, Switzerland.	Method and apparatus for manufacturing electric wire having wireenamel-type insulation.
149499	23-6-1977	Maillefer S.A. Route du Bois, 1024 Ecublens, Canton of vaud, Switzerland.	Method of manufacturing insulated electric wire of the enamelled-wire type extrusion.
153086	19-9-1980	Magnesium Elektron Ltd., Lunn's Lane, Clifton, Junction Swinton, Manchester, England.	An electric primary cell.
144958	15-4-1976	Maschinenfabrik Reinhausen Gebrüder Scheubeck KG. 8, Falkensteinstrasse 8400 Regensburg, 12, Federal Republic of Germany.	A tap selector for a tap switch assembly of a tapped transformer.
147467	5-10-1976	Do.	An on-load tap-changer
156644	22-9-1982	Metallgesellschaft AG, 16, Frankfurt AM, Reuterweg, West Germany.	A membrane electrolysis cell.
157978	22-7-1983	Do.	Vertically extending plate electrode and an assembly including the same for use in gas-forming electrolyzers.
155798	27-4-1982	Mitsubishi Denki Kabushiki Kaisha, 2-3, Marunouchi 2-chome, Chiyodaku, Tokyo, Japan.	Method of producing an electrically insulated conductive body.
156143	24-1-1983	Do.	Air circuit breaker.
156392	30-3-1982	Do.	Terminal connecting device.
156898	27-7-1982	Do.	Input converting circuit.
157465	24-1-1983	Do.	Air circuit breaker.
157572	24-1-1983	Do.	Air circuit breaker.
157722	24-1-1983	Do.	Air circuit breaker.
161010	29-7-1982	Do.	A terminal apparatus for a drawer type relay.
146898	19-10-1976	Mobil Tyco Solar Energy Corporation, 16 Hickory Drive, Waltham, Massachusetts, U.S.A.	Method of producing ribbon like crystal like bodies for use in fabricating solar cells.
146899	19-10-1976	Do.	Manufacture of semi-conductor ribbon and solar cells.
150376	18-12-1978	Moteus Leroy-Somer Boulevard Marcellin Leroy 16000 Angoulême France.	A system for regulating the terminal voltage of an independent variable speed alternating current generator.
162663	27-3-1985	Naba Kumar Bandopadhyay and Sruati Bandopadhyay, Both 144, Jodhpur Park, Calcutta-700 068, West Bengal, India.	Voltage regulator.
150786	6-11-1978	Oronzio De Nora Impianti Electrochimici S.P.A. Via Bistolfi 35, Milan, Italy.	A method of generating chlorine by electrolysis of brine.
158640	16-4-1983	Outokumpu Oy Outokumpu, Finland.	An electric furnace intended for smelting or heating.
146118	12-9-1977	Peico Electronics and Electricals Limited, Shivasagar Estate, Block, 'A', Dr. Annie, Besant Road, Worli, Bombay-400 018, Maharashtra, India.	Push-push switch.
147720	6-1-1978	Do.	An electronic start and stop circuit for operating the turntable of a record player
143922	10-4-1978	Do.	An optically operable electronic tripping circuit.

1	2	3	4
150661	19-3-1979	Permelec Electrode Limited, No. 2-5, Kasumi-gaseki, 3-chome, Chiyoda-ku, Tokyo, Japan.	Electrolysis electrodes and method of making same.
150943	13-9-1979	Do	Electrode substrate alloy for use in electrolysis.
153847	26-12-1980	Do.	Electrolysis apparatus using a diaphragm of a solid polymer electrolyte and method for production thereof
156926	20-7-1982	Permelec Electrode Ltd., No. 1159 Ishikawa, Fujisawa, Kanagawa-ke, Japan.	Ion exchange membrane electrolytic apparatus and process for producing the same.
158048	8-4-1983	Do.	A process for the production of an ion exchange membrane, with a coating thereon for use in electrolysis.
156293	22-9-1979	Permelec Electrode Ltd; No. 2,5, Kasumiga-seki, 3-chome, Chiyoda-ku, Tokyo, Japan.	Electrode for use in electrolysis of aqueous solutions of metal halides.
159552	6-6-1983	Do.	Cathode for electrolysis of acid solution and process for the production thereof.
144099	28-4-1975	RCA Corporation, 30 Rockefeller Plaza, City and State of New York, 10020, U.S.A.	Method and apparatus of cleaning a surface of an article.
144541	19-4-1976	Do.	Integrated circuit device both N-channel and P-channel insulated gatefield effect transistor
147572	2-1 1978	Do.	Semiconductor device and method of making thereof.
147578	2-1-1978	Do.	Multi-layered passivating structure for semiconductor devices and method of fabricating the same.
147965	7-11-1977	Do.	A semiconductor devices.
148328	28-2-1978	Do.	Semiconductor devices.
149514	14-12-1978	Do.	Improved passivating method for the production of an integrated circuit device.
150097	4-7-1978	RCA Corporation, 30 Rockefeller Plaza, City and State of New York, 10020, U.S.A.	Apparatus for optically testing the lateral dimensions of a diffracting grating pattern of material disposed on a substrate.
150616	2-1-1979	Do.	An integrated circuit structure particularly for CMOS/SOS integrated circuits.
155987	20-7-1981	Do.	Process for forming a tapered opening in a glass passivating coating on the surface of a semiconductor body.
157312	10-9-1982	Do	Method for growing monocrystalline silicon on a mask layer, in the manufacture of semiconductor devices.
160929	1-2-1984	Do.	Integrated circuit device and method of making same.
162554	4-7-1984	Do.	Semiconductor devices and method of fabricating same.
154802	1-10-1981	Rasemount incorporated, 12001 West 78th Street, Eden Prairie, Minnesota 55344, U.S.A.	Capacitive pressure transducer with isolated sensing diaphragm.
156305	22-1-1982	Do.	Circuit for measuring the reactance of an AC reactance.
162556	6-9-1984	Saint-Gobain Vitrage "Lee Miroir" 18 Avenue, d' Alsace, 92400 Courbevoie, France.	Electric fusion furnace for a vitrifiable charge.

1	2	3	4
150662	11-4-1979	Satake Engineering Co. Ltd., No. 1-19-10, Ueno, Taito-ku, Tokyo, Japan.	Automatic control apparatus for a grain separator.
152200	11-4-1979	Do.	Automatic control apparatus for an oscillating grain separator.
152277	17-12-1979	Do.	Particle color discriminating apparatus.
152410	18-9-1980	Do.	Automatic control device for a boundary plate of a grain separator.
157734	24-3-1982	Siddons Industries Ltd., Research Road, Pooraka, in the city of South Australia, Australia.	A method of fusing fusible oxide compounds of metals/non metals, for example slag in an electrical furnace and an electric furnace to carry out said method.
140386	6-3-1975	Siemens Ag, Berlin & Munich, West Germany.	An electromagnetically operable switch arrangement.
144693	26-2-1976	Do.	Automatic control circuitry for apparatus affected by dead time.
146293	4-11-1976	Do.	Digital data processing arrangements more particularly for railway safety engineering.
146792	6-10-1976	Siemens-Albis Aktiengesellschaft, Albisriedenstrasse 245/8047, Zurich, Switzerland.	Arrangements for correcting deviations from the true bearing caused by reflecting surfaces in target tracking radar installations.
147445	12-7-1977	Siemens AG, Berlin and Munich, West Germany.	Alternating current regulator.
147879	24-5-1977	Do.	Electric switchgear.
148125	13-2-1977	Siemens Aktiengesellschaft, Berlin & Munich, Federal Republic of Germany.	A correcting impulse generator.
148531	13-5-1977	Do.	Brushless synchronous machine.
149558	14-7-1982	Do.	Apparatus for bit error quota measurement in a digital transmission system.
150381	18-4-1979	Do.	Electrical switch gear.
151260	4-5-1979	Do.	Support framework for electrical or electronic equipment.
151392	9-11-1978	Do.	Device for indicating the level of a conveyor at different heights for example in mining.
151394	7-6-1979	Do.	Electrical contact assembly.
151947	23-5-1980	Do.	High-voltage electrical switch.
152093	18-3-1980	Do.	Protective relay having means for altering a switching contact arrangement thereof.
152461	18-11-1980	Do.	Electromagnetic switching device.
152462	11-12-1980	Do.	A two-channel data processing system.
152690	4-7-1981	Do.	A modular telecommunication system for exchanging data between any pair of a multiplicity of data terminals.
153044	4-7-1981	Do.	A modular telecommunication system.
153349	14-5-1981	Do.	A control device for use in controlling two-way rectifier.
153469	11-3-1980	Do.	Thermally responsive protective relay.
153641	11-3-1980	Do.	Device for remote operation of push button particularly for switch gear.

1	2	3	4
153850	24-2-1981	Siemens Aktiengesellschaft, Berlin & Munich, Federal Republic of Germany.	A device for transmission of signals from an apparatus nearby railway track of railway vehicles.
154043	8-7-1981	Do.	A circuit arrangement for supply voltage- synchronised switching of voltage half-waves.
154045	20-7-1981	Do.	A device for use in bridging brief mains failures in a voltage intermediate circuit static frequency changer.
154101	4-2-1981	Do.	A turbine set for generating and supplying electricity at a constant frequency to a network.
154167	4-7-1981	Do.	A modular telecommunication system.
154491	19-2-1982	Do.	Short-circuit protection for direct current regulating circuitry.
154790	4-7-1981	Do.	A modular telecommunication system.
154906	23-12-1981	Do.	A device for speed determination of a rotary shaft.
155068	10-9-1981	Do.	Apparatus for signalling in PBX systems.
155470	23-12-1981	Do.	A medium voltage electrical load switching device.
155581	20-5-1982	Do.	A terminal distribution box.
155802	21-5-1982	Do.	Terminal distributions box for multiwire power cables or multiwire power lines with shielded wires.
155963	20-5-1982	Do.	Terminal distribution box for plastic insula- ted multiwire power cables.
156043	8-2-1982	Do.	Electrical generating apparatus.
157359	6-8-1982	Do.	Contact arrangement for electrical switching device.
158420	11-10-1982	Do.	An intermediate circuit static frequency changer.
158665	14-6-1983	Do.	Improvement in protective circuit for a swit- ching transistor.
158768	13-4-1983	Do.	A drive mechanism for an electrical switch.
158826	26-7-1983	Do.	A control system for regulating the electrical power circuit of an electrical generator.
158984	22-2-1983	Do.	Arrangement for detachably connecting a wire to a circuit board conductor.
159037	3-6-1983	Do.	Driving mechanism for a three position elec- trical switch.
159075	22-7-1983	Do.	A loop current feed arrangement for a charac- teristic converter.
159449	13-10-1983	Do.	Commutator for a electrical machine.
160922	16-9-1983	Do.	A contact arrangement with bridge-like con- tact lamellae for retractable switch gear.
161308	12-9-1984	Do.	Contact piece for electrical switchgear.
161399	17-5-1984	Do.	A terminal arrangement for a switchgear or a combination of switchgears.
161632	1-8-1983	Do.	Multi-pole high voltage circuit breaker.

1	2	3	4
161680	29-5-1985	Siemens Aktiengesellschaft, Berlin & Munich Federal Republic of Germany	Modular housing assembly for electrical components.
161925	25-9-1985	Do.	A transducer plate for piezoelectric transducers.
162169	15-4-1985	Do.	A Process for the production of crack-free large-area crystalline silicon bodies for solar cells.
152708	29-9-1980	Societe Des Electrodes Et Refractaires Savoie (SERS) 12 Rue du General Foy, 75008, Paris, France.	A new nipples joint for a furnace electrode.
153736	27-1-1981	Sulzers Brothers Limited CH-8401, Winterthur, Switzerland.	A method of producing magnesium from a magnesite or dolomite.

ELECTRICAL LIST NO. IV

COMMERCIAL WORKING OF PATENTED INVENTORS

The following patents in the field of Electrical Engineering Industry are not being commercially worked in India as admitted by patentees in the statements filed by them under section 146 (2) the Patents Act, 1970 in respect of calendar year 1988 generally on account of want of request for licences to work the patented invention. Persons who are interested to work the said patents commercially may contact the patentees for the grant of a licence for the purpose.

Patent No.	Date of Patent	Name & Address of the Patentee	Title of the inventors
1	2	3	4
160160	24-05-1984	Telefunken Electronic GmbH, Theresienstrasse 2, D-7100 Heilbronn, West Germany.	Tuner for at least two frequency ranges.
160325	24-05-1984	Do.	Tuning circuit for the UHF and VHF ranges.
156534	30-07-1982	The B. F. Goodrich Company, 277 Park Avenue, New York, 10017, USA.	Apparatus for monitoring the integrity of a conveyor belt carrying antennas representative of conveyor belt integrity.
153946	30-10-1980	The Jacobs Manufacturing Company, 22 East Dudley town Road, Bloomfield connecticut 06002, U.S.A.	Improved solenoid.
161522	28-06-1984	The Secretary of State of Defence etc. Whitehall London SW1A, 2HB, England.	Magnetic apparatus for use in minesweeping or ship degaussing systems.
156185	02-07-1982	Trutzschler GmbH & Co. kg. Duvonstrasse 82-92, D-4050, Monchengladbach 3, West Germany.	Apparatus for transmitting signals between a fixed station and mobile station of a power-driven textile machine.
140475	21-10-1975	Union Carbide India Ltd., 1 Middleton Street., Calcutta-700071 West Bengal, India.	Flash-lights or electric torches.
142056	21-10-1975	Do.	Rotary switch mechanism in and an electric torch or flash-light.
145774	15-07-1977	Do.	Electric flashlight.
146566	12-12-1977	Do.	Dry battery operated lighting means which automatically come into operation when the mains power is cut off.
149030	24-02-1979	Do.	An improved electric flashlight.
151999	22-05-1981	Do.	Metal cap for exposed top of carbon electrode of a dry cell and an improved dry cell incorporating same.

1	2	3	4
153608	16-10-1980	Union Carbide India Ltd. 1, Middleton Street Calcutta-700071 West Bengal, India	Improved push button switch.
154805	25-03-1983	Do.	Dry cell torch with adjustable focussing head
154976	01-03-1983	Do.	Improved water proof flashlight.
157812	19-05-1983	Do.	Improvements in or relating to stock batteries.
148981	24-04-1978	Ushio Denki Kabushiki Kaisha 6-1 ole-machi 2-chome, Asahi-Tokai Building, 19-Floor, chiyoda-ku, Tokyo, Japan.	Rare gas discharge lamp.
148982	24-04-1978	Do.	Discharge lamp.
142422	30-06-1975	USS Engineering and consultants, Inc. 600 Grant Street, Pittsburgh, state of Pennsylvania, U.S.A.	Electrolytic treating apparatus.
142536	23-07-1975	Westinghouse Electric Corporation (WEC) Westinghouse Building, Gateway Center, Pittsburgh, Pennsylvania, 15222, U.S.A.	A circuit interrupter for a distribution trans- former.
143218	13-01-1975	Do.	Circuit interrupter with electromagnetic opening means.
143832	31-03-1976	Do.	Circuit interrupter.
144169	29-04-1975	Do.	Electrical bushing a spiral tap assembly.
144307	20-80-1975	Do.	Dynamo electric machine.
145299	12-09-1975	Do.	Surge arrester construction.
145796	22-12-1976	Do.	Low voltage vacuum switch and operating machine
145863	29-09-1976	Do.	Capacitive voltage transformer with improved compensating reactor arrangements.
146197	29-01-1977	Do.	Surge arrester gap and grading means.
146205	10-08-1976	Do.	Circuit interrupter.
146274	07-04-1977	Do.	Capacitor.
146387	24-02-1977	Do.	Circuit breaker with improved trip means having a high rating shunt trip.
146560	06-10-1976	Do.	Capacitive voltage transformers.
146748	22-12-1976	Do.	Low voltage vacuum shorting switch.
146788	10-06-1974	Do.	Flexible non-tacky prepegs and method of making same.
146804	70-08-1976	Do.	Circuit interrupters for oil filled distribution transformers.
147292	02-03-1977	Do.	A method of producing semiconductor switch- ing devices.
147814	07-04-1977	Do.	A method of fabricating thyristor and diode semiconductor devices by tailoring or modifying their recovery charges.
148735	08-05-1978	Do.	Packages for high triggered semiconductor device.
148845	23-09-1977	Do.	Semiconductor switching devices.
149273	20-12-1977	Do.	Apparatus for protection against subsynchro- nous current in a power system.

1	2	3	4
149575	28-2-1978	Westinghouse Electric Corporation (WEC) Westinghouse Building, Gateway Center Pittsburgh, Pennsylvania 15222, U.S.A.	Vacuum switch system for electrolytic cells.
149720	13-04-1978	Do.	Electrical insulating bushings.
150329	10-12-1979	Do.	A method of making semiconductor devices and semi-conductor devices produced thereby.
150490	10-05-1978	Do.	Electrical apparatus such as capacitor containing dielectric fluid.
150718	11-07-1979	Do.	Dynamoelectric machines.
150911	14-03-1979	Do.	A method for producing voltage limiter suitable for use in gapless lighting arresters.
151021	08-11-1978	Do.	Capacitor structures for use in power capacitor having high stress capability.
151120	22-08-1979	Do.	Var generator
151262	12-07-1979	Do.	Low voltage vacuum switch.
151456	20-02-1980	Do.	Apparatus for recovering slip frequency power from a wound rotor induction motor.
151730	18-11-1980	Do.	Electric switching device.
151842	22-03-1980	Do.	An electrical control device.
151852	19-10-1979	Do.	Low voltage vacuum switches.
152036	05-02-1981	Do.	Protected motor pump unit.
152078	13-05-1980	Do.	A dynamo electric machine.
152206	10-01-1980	Do.	Iron engaging slot wedges for dynamo electric machines and dynamo electric machines comprising the same.
152332	20-07-1979	Do.	Light activated semi conductor switches.
152340	20-12-1979	Do.	Magnetic core structure for electrical inductive apparatus.
152409	14-08-1980	Do.	Switch operator for use with a switch.
152428	20-12-1979	Do.	A method of forming an irradiated region of a desired thickness, dosage and dosage gradient in materials such as semi-conductor bodies by nuclear radiation.
152658	28-11-1980	Do.	A process for preparing PNPN thyristors.
152809	19-08-1981	Do.	Control system for controlling the speed of pole-amplitude-modulated (PAM) motor.
153110	28-01-1981	Do.	Multiplexed data acquisition systems.
153171	25-3-1981	Do.	Vacuum electric circuit interrupters.
154158	28-04-1981	Do.	Electrolytic cell electrical shunting switch assembly.
154190	25-03-1981	Do.	Improved dielectric fluids.
154230	14-07-1982	Do.	Power capacitors.
154271	11-06-1981	Do.	A method of making thyristors.
154783	14-05-1981	Do.	Var generators.
154896	25-06-1981	Do.	Process for making semiconductor devices and semi-conductor devices thereby obtained.
154972	05-11-1981	Do.	Electrical switching devices.

1	2	3	4
155071	27-7-1982	Westinghouse Electric Corporation (WEC) Westinghouse Building, Gateway Center, Pittsburgh, Pennsylvania 15222, U.S.A.	Sliding window power demand Control system.
155577	07-01-1982	Do.	Electrical inter-connection apparatus.
155687	01-02-1982	Do.	Metal enclosed switch gears and method of making same.
155961	28-04-1982	Do.	Method of forming electric coil structures and electric coil.
155973	13-01-1983	Do.	Static var generator.
155990	26-11-1981	Do.	Laminated magnetic cores.
155996	13-01-1983	Do.	Static var generators.
156321	03-06-1982	Do.	Operating mechanism for low DC voltage high continuous current electrical shunting switches.
156450	29-07-1982	Do.	Digital Communication system.
156453	22-11-1982	Do.	Condenser bushings for high-voltage electrical apparatus.
156613	13-12-1982	Do.	Motor control apparatus with true RMS non-sinusoidal negative sequence stator current protection mode.
156729	13-10-1982	Do.	Three-phase transformer core.
156954	26-08-1982	Do.	Electrical apparatus having temperature probe for monitoring the temperature at a predetermined location of the winding in the apparatus.
157000	07-10-1982	Do.	Improved electrical apparatus having leak detection means.
157079	16-10-1982	Do.	Electrical power transformers.
157334	02-03-1983	Do.	Oil resistant, insulated, bondable electrical conductors and method of making the same.
157403	27-01-1983	Do.	Arrangement for laser scribing of dendritic web silicon cells.
157464	20-01-1983	Do.	Static VAR generators and net work stabilizers.
157578	27-07-1983	Do.	Perchloroethylene containing dielectric fluid for electrical apparatus and electrical apparatus comprising the same.
157665	27-07-1983	Do.	Perchloroethylene containing dielectric fluid for electrical apparatus and electrical apparatus comprising the same.
157764	26-05-1982	Do.	Vacuum interrupter with a specially modulated axial magnetic field contact.

1	2	3	4
157853	10-01-1983	Westinghouse Electric Corporation (W E C), Westinghouse Building, Gateway Center, Pittsburgh, Pennsylvania 15222, U.S.A.	High power resonance filters.
158104	29-07-1982	Do.	Capacitor apparatus.
158320	27-01-1983	Do.	An electrical shorting switch assembly including a fast to open fast to close arcing switch.
158455	05-05-1983	Do.	Apparatus employing supersaturated vapour dielectrics.
158541	19-05-1983	Do.	Rotary switches.
158593	22-04-1982	Do.	Low DC voltage high current switch assembly.
158643	27-04-1983	Do.	Ferrous sheet steel members having thermocured, insulating phosphate coating and a method for producing the same.
158662	07-06-1983	Do.	Device for continually upgrading low vapour-pressure dielectric fluids.
158667	15-06-1983	Do.	Electrical transformers.
158790	25-05-1983	Do.	Transposed assembly of electrically conductive sheets and method of making same.
159036	03-06-1983	Do.	Data acquisition and bridge inter-face systems for monitoring temperature with a resistance thermo detector (RTD) device.
159079	19-08-1983	Do.	Switching devices.
159425	26-10-1983	Do.	Molded case circuit breaker apparatus having trip bar with flexible armature inter-connection.
159446	05-10-1983	Do.	A static var generator having a thyristor circuit arrangement providing reduced losses.
159487	26-04-1984	Do.	High temperature solid electrolyte fuel cell generators.
159506	07-10-1982	Do.	High permeability core with a buttlap joint.
159533	24-02-1983	Do.	Insulated conductors and method of making same.
160022	12-09-1984	Do.	Arc resistant vapour condensing shield for vacuum type circuit interrupter.
160023	12-09-1984	Do.	Phase-shift transformer circuit.
160222	14-06-1984	Do.	Gas circuit interrupter.
160329	27-11-1984	Do.	Static var generator having reduced harmonics.
160719	27-11-1984	Do.	Improvements in or relating to molded case circuit breaker with an apertured molded cross bar for supporting a movable electrical contact arm.
160871	29-12-1984	Do.	Solenoid activated operating devices.
160923	27-09-1983	Do.	Rectifier transformer devices.
161003	29-04-1982	Do.	Electrical inductive apparatus.

1	2	3	4
161019	27-04-1983	Westinghouse Electric Corporation (W E C), Westinghouse Building, Gateway Center, Pittsburgh, Pennsylvania 15222, U.S.A.	Var generators.
161072	31-01-1985	Do.	Static var generator having improved response time.
161114	05-04-1983	Do.	Electrodes for use in electrochemical energy cells and electrochemical energy cells comprising said electrode.
161123	28-03-1985	Do.	Frequency conversion apparatus.
161247	18-03-1985	Do.	Dynamo-electric machines.
161301	16-06-1984	Do.	Distributed process control system.
161342	24-02-1983	Do.	Method of making a reel of a non-tacky insulated, self-bondable elongate conductors.
161393	14-12-1983	Do.	Vacuum interrupter contact structure and method of fabrication.
161464	09-01-1984	Do.	Apparatus for supplying power to a D. C. power distribution system.
161579	13-09-1985	Do.	Electric circuit breakers.
161712	21-09-1983	Do.	Assembly cum-heat sink for semi-conductor devices.
161580	13-09-1985	Do.	Electric circuit breakers.
161715	10-05-1984	Do.	Three phase core form transformers.
161723	05-10-1983	Do.	Vacuum interrupter electrical contacts.
161744	16-12-1983	Do.	Electrically stable perchloroethylene oil blends.
161749	13-09-1985	Do.	Electric circuit breakers.
161861	02-04-1985	Do.	Rotary snap-action electrical switches.
161902	25-02-1985	Do.	Dynamo-electric machine with stator coil end turn support system.
161907	10-04-1984	Do.	A frequency converter apparatus.
161916	22-01-1986	Do.	Electrical inductive apparatus.
161928	28-10-1985	Do.	Circuit breakers.
162009	16-09-1985	Do.	Circuit breakers.
162155	23-03-1984	Do.	Ferromagnetic cores for electric transformers, method of producing same and electric transformers comprising said ferromagnetic cores.
153313	25-08-1980	Xerox Corporation, Xerox Square, Rochester, New York 14644, U.S.A.	An automatic xerographic reproducing apparatus.
153846	11-09-1980	Do.	Means for supplying electrical power.
154355	26-02-1981	Do.	Fuser system for an electrostatic reproduction apparatus.
151734	12-12-1987	Yokogawa Hokushin Electric Corporation, 9-32 Nakacho, 2-Chome, Musashino-shi Tokyo, Japan.	Indicating recorder.
152723	05-03-1979	Do.	Capacitor-type differential pressure transmitter system.

RENEWAL FEES PAID

144620	145900	146339	147141	148622	150051	150144
150237	150291	151076	151122	151791	151946	152211
152213	152221	152449	152675	152893	152912	153066
154421	154584	154621	154820	155063	155692	155772
156013	156107	156110	156484	156489	156667	156855
156865	157180	157293	157664	157736	157764	158455
158494	158662	158790	159007	159322	159491	160081
161003	161175	161332	161636	161816	161931	161936
162010	162067	162148	162348	162668	162705	162976
163484	163488	163490	163710	164075	164444	164577
164646	164899	164903	164912	164943	164944	164945
164946	164949	164950	164987	164991	164997	165011
165051	165053	165054	165145	165207	165210	

COMPLETE SPECIFICATION ACCEPTED

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स्वीकृत सम्पूर्ण विनिर्देश

एतद्वारा यह सूचना दी जाती है कि सम्बन्ध आवेदनों में से किसी पर पेटेंट अनुदान का विरोध करने के इच्छुक कोई व्यक्ति, इसके निर्गम की तिथि से 4 महीने या अग्रिम ऐसी अवधि जो उक्त 4 महीने की अवधि की समाप्ति के पूर्व पेटेंट नियम 1972 के तहत विहित प्रपत्र 14 पर आवेदित एक महीने की अवधि से अधिक न हो के भीतर कभी भी नियंत्रक, एकस्थ को ऐसे विरोध की सूचना विहित प्रपत्र 15 पर दे सकते हैं। विरोध सम्बन्धी लिखित वक्तव्य; उक्त सूचना के साथ अथवा पेटेंट नियम, 1972 के नियम 36 में यथा विहित इसकी तिथि के एक महीने के भीतर ही फाइल किए जाने चाहिए।

"प्रत्येक विनिर्देश के संदर्भ में नीचे दिए वर्गीकरण, भारतीय वर्गीकरण तथा अन्तर्राष्ट्रीय वर्गीकरण के अनुरूप हैं।"

नीचे सूचीगत विनिर्देशों की सीमित संख्या में सूचित प्रतियाँ, भारत सरकार बुक डिपो, 8 किरण शंकर राय रोड, कलकत्ता में विक्रय हेतु यथा समय उपलब्ध होगी। प्रत्येक विनिर्देश का मूल्य 2/- रु. है। (यदि भारत के बाहर भेजे जाएं तो अतिरिक्त डाक खर्च)। सूचित विनिर्देश की आपूर्ति हेतु मांग-पत्र के साथ निम्नलिखित सूची में यथा प्रदर्शित विनिर्देशों की संख्या संलग्न रहनी चाहिए।

रूपांकन (चित्र आरेखों) की फोटो प्रतियाँ यदि कोई हों, के साथ विनिर्देशों की टंकित अथवा फोटो प्रतियों की आपूर्ति पेटेंट कार्यालय, कलकत्ता, द्वारा विहित लिप्यान्तरण प्रभार (उक्त कार्यालय से पत्र व्यवहार द्वारा सुनिश्चित करने के उपरान्त उसकी अवायगी पर की जा सकती है। विनिर्देश की पृष्ठ संख्या के साथ प्रत्येक स्वीकृत विनिर्देश के सामने नीचे वर्णित चित्र आरेख कागजों को जोड़कर उसे 4 से गुणा करके; (क्योंकि प्रत्येक पृष्ठ का लिप्यान्तरण प्रभार 4/- रु. है) फोटो लिप्यान्तरण प्रभार का परिकलन किया जा सकता है।

CLASS :

166461

Int. Cl. : F 16 k 1/26.

A METHOD FOR PRODUCING A SEALING RING FOR INSTALLATION IN A SHUT OFF VALVE AND A SHUT OFF VALVE PROVIDED WITH A SEALING RING PRODUCED THEREBY.

Applicant : KLINGER AG., OF BAARERSTRASSE 10, CH-6301 ZUG, SWITZERLAND.

Inventors : 1. RICHARD HUBER, 2. PETER WIRZ.

Application No. 877/Cal/86 filed December 3, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

15 Claims

A method of producing a sealing ring for installation in a shut off valve, said sealing ring being prepared in a manner known per se from expanded graphite, characterized in that the sealing ring is formed by pressing pulverulent graphite particles or of lamellae of expanded graphite extending perpendicularly to the axis of said sealing ring, wherein the final installation density of the expanded graphite forming the sealing ring is maintained at a level of 1.5 to 2.2 g/cm³.

Compl. specn. 13 pages.

Drg. 2 sheets

CLASS :

166462

Int. Cl. : H 05 g 1/26.

PIEZOELECTRIC ATTENUATION TONGUE SYSTEM FOR SLIT RADIOGRAPHY EQUIPMENT.

Applicant : B.V. OPTISCHE INDUSTRIE 'DE OUDE DELFT' OF VAN MIEREVELTLAAN 9, 2612 XE DELFT, THE NETHERLANDS.

Inventor : 1. DUINKER SIMON.

Application No. 893/Cal/86 filed December 9, 1986.

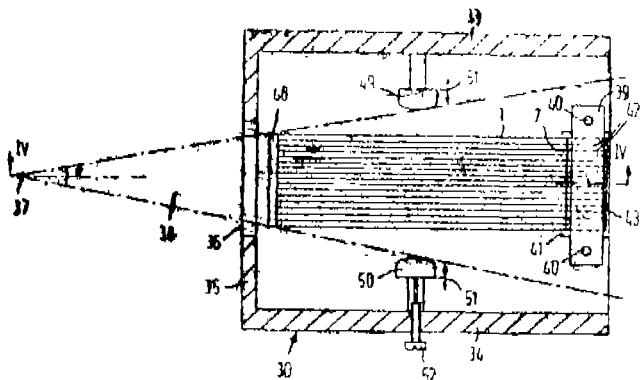
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

14 Claims

Piezoelectric attenuation tongue system for slit radiography equipment comprising:

a number of tongues placed next to each other which are each firmly mounted by one end on a carrier;

characterized in that the separate tongues are obtained by slitting a plate (1, 1') of piezoelectric material from a first edge (2, 2') of the edges leaving free a strip (7, 7') along a second edge (3, 3') situated opposite the first edge, which strip forms a base, whereby the separate tongues each form a single whole with the base of piezoelectric material.



Compl. specn. 13 pages

Drg. 2 sheets

CLASS : 32-E

166463

Int. Cl. : C 08 f 110/06.

A METHOD FOR PREPARING POLYPROPYLENE BY POLYMERIZING PROPYLENE.

Applicant : MITSUI TOATSU CHEMICALS, INCORPORATED, OF 2-5, KASUMIGASEKI 3-CHOME, CHIYODA-KU, TOKYO, JAPAN.

Inventors : 1. TADASHI ASANUMA, 2. MITSURU ITO, 3. KANEKO ITO, 4. YOSHIYUKI FUNAKOSHI, 5. AKIHIKO NAKAJIMA.

Application No. 896/Cal/86 filed December 9, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

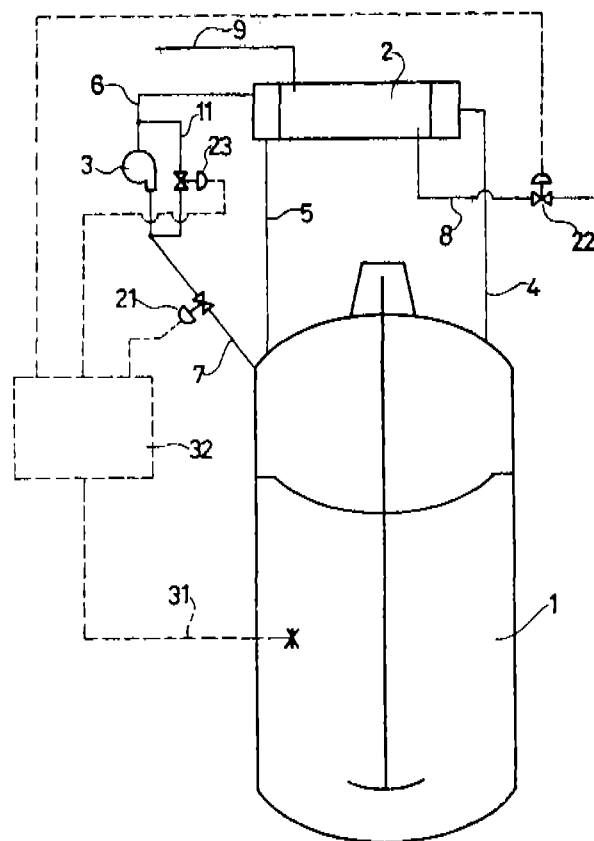
4 Claims

A method for preparing polypropylene by polymerizing propylene in a polymerization apparatus equipped with a cooling system, wherein stream is produced in the presence of a volatile liquid medium and a non-condensable gas in a reaction system, which comprises:

- condensing the steam in a reflux condenser, and returning said condensate and a portion of the non-condensable gas to the reaction system;
- compressing and recirculating the remaining portion of said noncondensable gas directly to said cooling system; and
- controlling the flow rate of said re-circulated non-condensable gas and of a cooling medium introduced into said reflux condenser in accordance with the temperature of the reaction system, there-

10—67GI/90

by removing polymerization heat to keep the polymerization temperature constant.



Compl. specn. 23 pages

Drg. 4 sheets

CLASS :

166464

Int. Cl. : H 02 k 13/00.

METHOD FOR PARTIAL DISCHARGE DETECTION AND BREAKING SPARK MEASUREMENT IN DYNAMOELECTRIC HIGH-VOLTAGE MACHINES, AND AN APPARATUS FOR PERFORMING THE METHOD.

Applicant : SIEMENS AKTIENGESellschaft, OF WITTELSBACHERPLATZ 2, D-8000 MUNCHEN 2, WEST GERMANY.

Inventors : 1. REINHOLD KOZIEL, 2. KURT FORK, 3. JURGEN WEIDNER.

Application No. 906/Cal/86 filed December 12, 1986.

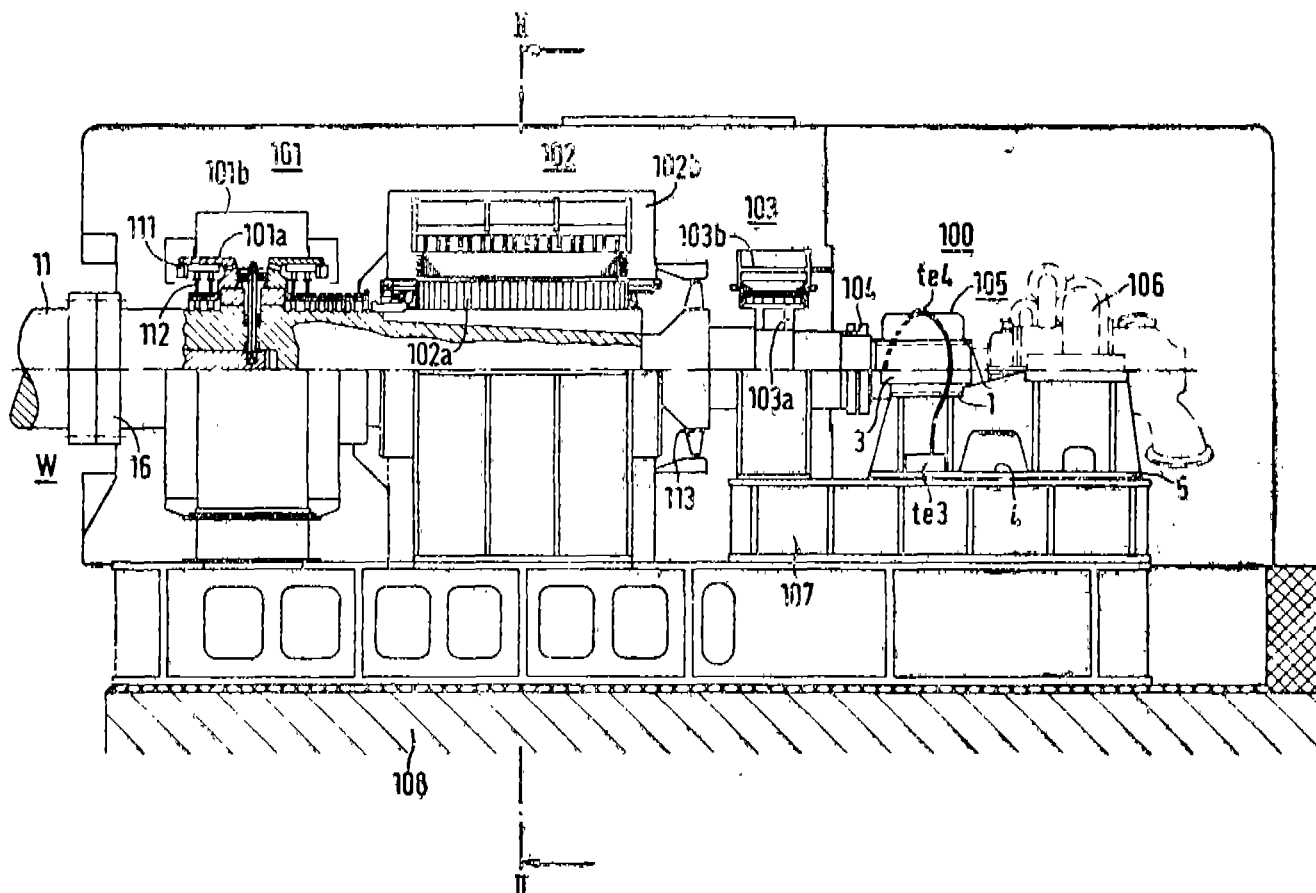
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

4 Claims

Apparatus for partial discharge detection and breaking spark measurement in a dynamo-electric high-voltage machine, especially for monitoring insulation status during operation of a stator winding and connected electrical output lines in a turbo-generator including a stator having a stator winding and a stator housing, a rotor with an exciter winding and a shaft with an electromagnetic field, defining an air gap between the rotor and the stator, and at least one oil lubricated slide bearing supporting the shaft of the rotor with a bearing shell being electrically insulated from the ground, comprising:

a partial discharge measurement apparatus including at least one partial discharge measuring instrument, coupling filters, measuring lines connected between said coupling filters and said measuring instrument, at least one stationary coupling loop in the form

of a reception antenna coupled over the bearing shell to the electromagnetic field of the machine shaft in the immediate vicinity of the bearing shell, said coupling loop having an output side connected to said coupling filters.



Compl. specn. 24 pages

Drg. 3 sheets

CLASS : 123, 144-B

166463

Int. Cl. : C 05 g 5/00.

IMPROVEMENTS IN OR RELATING TO METHOD OF PREPARING COATED UREA FERTILIZER.

Applicant : PROJECTS AND DEVELOPMENT INDIA LIMITED, OF P.O. SINDRI, DHANBAD, BIHAR, INDIA.

Inventors : (1) RAMESH CHANDRA SAXENA, (2) DR. KRISHNA MOHAN VERMA.

Application No. 923/Cal/86 filed December 18, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

7 Claims

An improved method of preparing coated urea particulate materials which comprises contacting urea particled materials with an atomised coating solution made of solubilised macro molecule (PVA) polyvinyl alcohol and colloidal electrolyte such as sodium petroleum sulphonate, sodium alkyl sulfate or sodium salt of alkylaryl sulfonic acid, said coating being carried out in hot condition at temperatures of about 40–65°C and wherein the coating solution is made of polyvinyl alcohol and colloidal electrolyte using 1–25 parts of the former and 3–45 parts of the latter in the presence of water.

Compl. specn. 16 pages

Drg. 1 sheet

CLASS :

166466

Int. Cl.

METHOD FOR PURIFICATION OF SEWAGE FROM ETHYLENE GLYCOL.

Applicant : VOLGO-URALSKY NAUCHNO-ISSLEDOVATELSKY I PROEKTNY INSTITUT PO DOBYCHE I PERERABOTKE SEROVODORODSODERZHASCHIKH GAZOV (VOLGOURALNIPIGAZ), OF ORENBURG, ULITSA PUSHKINSKAYA, 20, U.S.S.R.

Inventors : (1) MARK BENYAMINOVICH TSINBERG, (2) MARINA NAFKHATOVNA NENASHEVA, (3) PETER ILICH GVOZDYAK, (4) KONSTANTIN IVANOVICH LYSIKOV.

Application No. 7/Cal/1987 filed January 01, 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

5 Claims

A method of purification of sewage from ethylene glycol, consisting in that the sewage containing ethylene glycol and microelements such as herein before defined is treated with the sources of phosphorous such as herein described, nitrogen such as herein described and a microorganism being *Arthrobacter* genus such as herein described, ther said microorganism is cultivated at 20–35°C for a period between 24 to 48 hours until said sewage is purified from ethylene glycol.

Compl. specn. 14 pages

Drg. Nil

Int. Cl. : H 01 b 17/00

166467

2 Claims

POLLUTION-PROOF INSULATORS.

Applicant : NGK INSULATORS, LTD., OF 2-56, SUDA-CHO, MIZUHO-KU, NAGOYA CITY, AICHI PREF., JAPAN.

Inventors : (1) SHIGEHICO KUNIEDA, (2) TOSHIMI SUZUKI.

Application No. 152/Cal/1987 filed February 27, 1987.

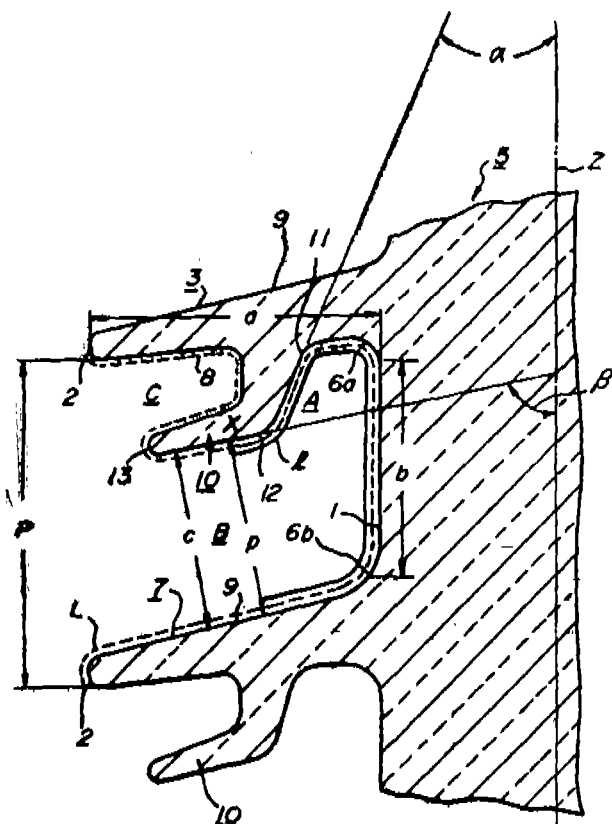
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

7 Claims

A pollution-proof insulator comprising :

a central core portion, at least a shed which extends substantially radially from the core portion, and at least an annular rib extending downward from lower surface of the shed;

said rib having lower edge thereof directly outwardly with respect to the core portion.



Compl. specn. 16 pages

Drg. 3 sheets

CLASS : 102-D

166468

Int. Cl. : F 16 j 15/00.

A COMPOSITE SEAL ASSEMBLY.

Applicant : MICRODOT INC., 23 OLD KINGS HIGHWAY SOUTH DARIEN, CONNECTICUT 06820, UNITED STATES OF AMERICA.

Inventor : GERALD H. BECK.

Application No. 174/Cal/87 filed March 5, 1987.

Convention dated 15th October 1986, (520556) Canada.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

A composite seal for disposition about a circular element having a central axis, said seal comprising :

an annular primary sealing element having a durometer of 60 to 90 on the Shore A Scale;

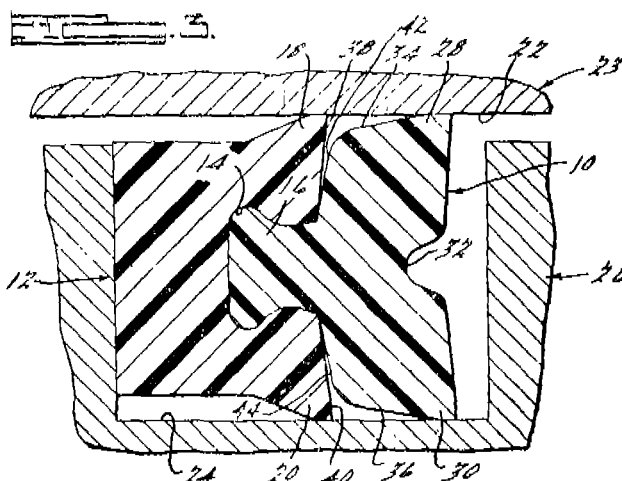
an annular secondary sealing element having a durometer of 95 to 125 on the Shore A Scale;

said secondary element being of a generally U-shaped radial cross section defined by radially spaced axially extending legs connected by a radially extending bight portion;

the legs of said secondary seal element being normally engageable with said circular element and with the wall of a supporting element, respectively;

the legs on said secondary element having conical axial end faces, respectively, inclined axially and radially toward the bight portion thereof;

said primary element having a pair of radially spaced lips with axially and radially inclined surfaces complementary to and in juxtaposed relation to the end faces on said secondary element to preclude extrusion of said primary element past the legs of said secondary element.



Compl. specn. 8 pages

Drg. 1 sheet

CLASS :

166469

Int. Cl. : H 01 j 1/88.

COLOUR DISPLAY TUBE.

Applicant : N. V. PHILIPS' GLOEILAMPENFABRIEK, AT GROENEWOUDSEWEG 1, EINDHOVEN, THE NETHERLANDS.

Inventors : 1. PIET CHRISTIAAN JOZEF VAN RENS, 2. WILLEM VAN DER HOEK.

Application No. 215/Cal/87 filed March 18, 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

5 Claims

A colour display tube comprising :

an envelope having a substantially rectangular display window with an upright edge and a substantially rectangular colour selection electrode having a large number of apertures and suspension means for suspending the colour selection electrode in the corners of the said upright edge;

said suspension means comprising at each corner two parts;

the one being a resilient element connected to the colour selection electrode, which resilient element comprises a flat portion which is substantially perpendicular to the electron beam paths at the corner regions and the other part being a metal member

in the corners of the upright edge of the display window, one of the parts having an aperture and the other of the parts having a spherical part engaging in said aperture;

characterized in that the centre of the spherical part of the other of the parts is situated substantially in the centre of the aperture of the one of the parts and the spherical part having at least three points of engagement with the apertured part;

the said apertured part being so formed that at least one of the said points of engagement is situated out of the plane of the said flat portion, on the side thereof directed away from the other of the parts.

CLASS : 33-F

166470

Int. Cl. : B 28 b 7/00.

A REFRACTORY MOULDED BODY HAVING AT LEAST ONE FLOW PASSAGE FOR A METALLIC MELT.

Applicant : DIDIER-WERKE AG., OF LESSINGSTR. 16-18, 6200 WIESBADEN, WEST GERMANY.

Inventors : 1. ALBERT KLEINEVOSS, 2. JOCHEN KOPIA.

Application No. 247/Cal/87 filed March 27, 1987.

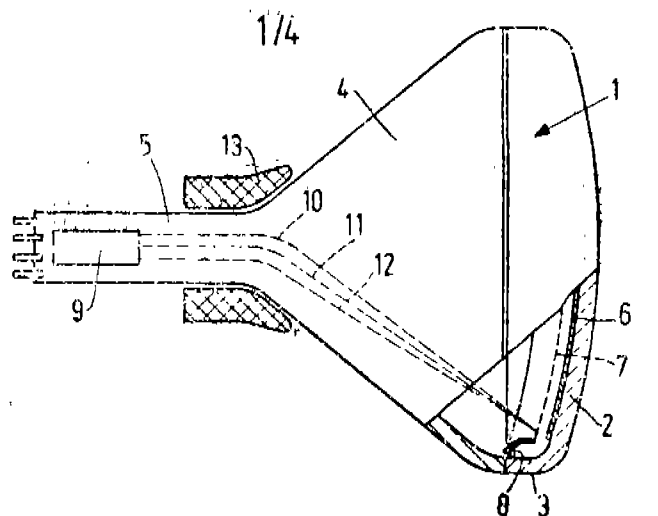
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Calcutta.

6 Claims

A refractory moulded body having at least one flow passage for a metallic melt, in particular a plate of jacket for slide gates at the outlet of metallurgical vessels, the moulded body comprising :

a base body of cold setting refractory concrete and at least one oxide ceramic high-quality insert moulded into the base body;

characterized in that the base body surrounding the high-quality insert (3, 5; 13, 23, 25) consists of a chemically setting refractory concrete containing sintered magnesia which is poor in iron and which comprises more than 80% by mass of MgO in the form of a refractory granulate, the base body having, after setting, expansion joints (7, 14, 27) extending in the direction of the flow passage which are closed up after the heat treatment of the moulded body.



Compl. specn. 10 pages

Drg. 4 sheets

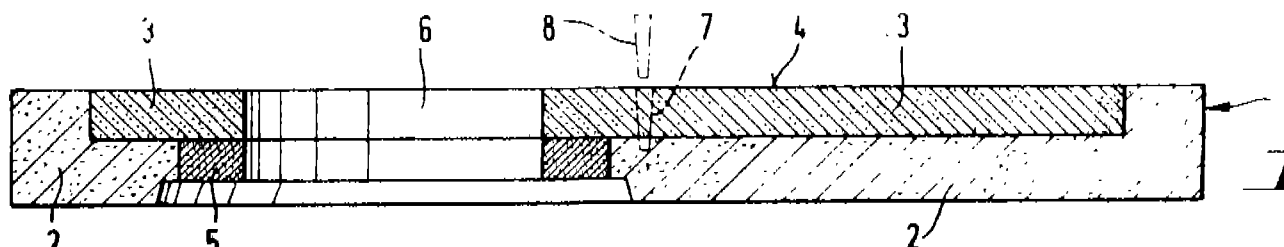
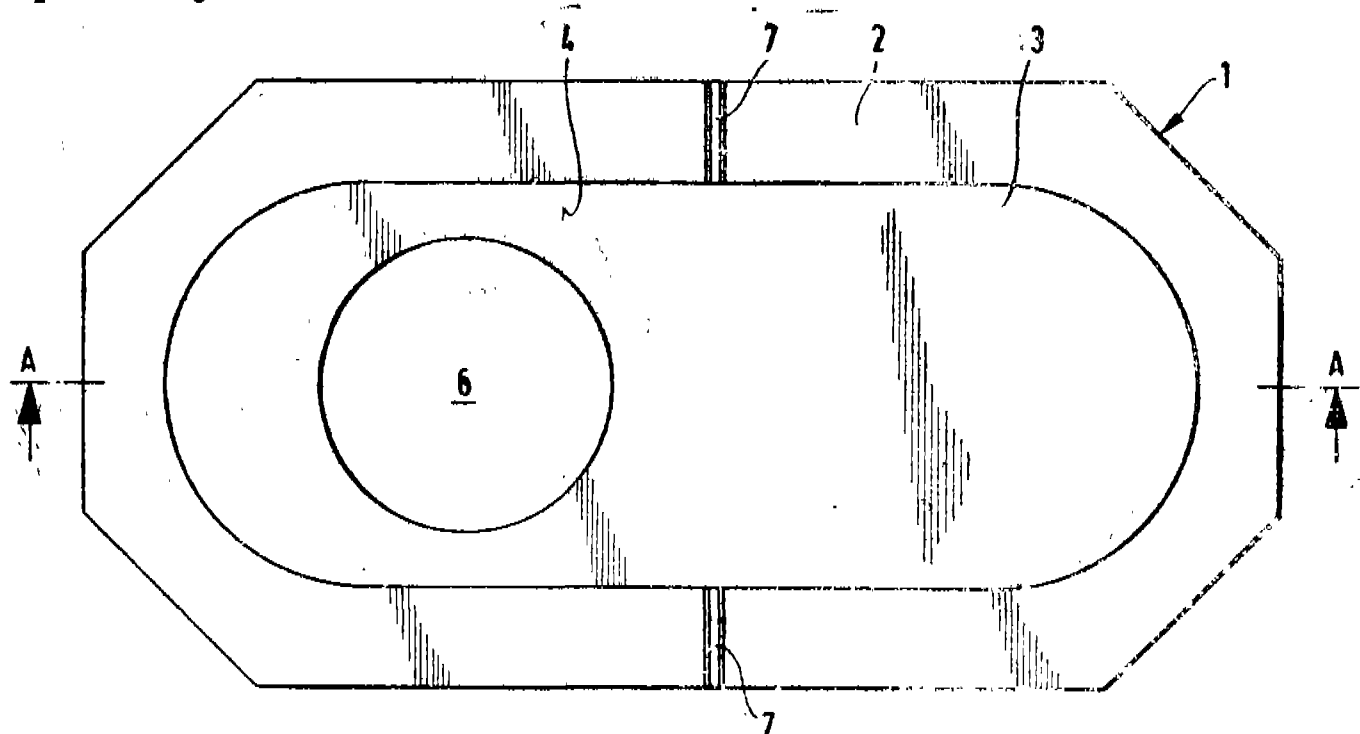


Fig.
(A-A)



Compl. specn. 8 pages

Drg. 2 sheets

Ind. Cl. : 32 F₈ (b), 32 F₄.

166471

Int. Cl.⁴ : C 07 D 333/78.

A PROCESS FOR THE PREPARATION OF 5, 6-DIHYDRO-4H-CYCLOPENTA [b] THIOPHENE-6-CARBOXYLIC ACIDS.

Applicant : LIPHA, LYONNAISE INDUSTRIELLE PHARMACEUTIQUE, A FRENCH BODY CORPORATE, OF 34, RUE SAINT ROMAIN-69008 LYON, FRANCE.

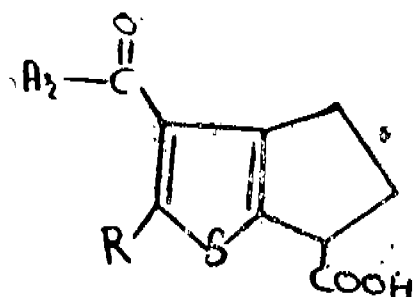
Inventors : GERARD FERRAND, JACQUES BARBANTON, JEAN-CLAUDE DEPIN.

Application for Patent No. 630/Del/85 filed on 2nd August, 1985.

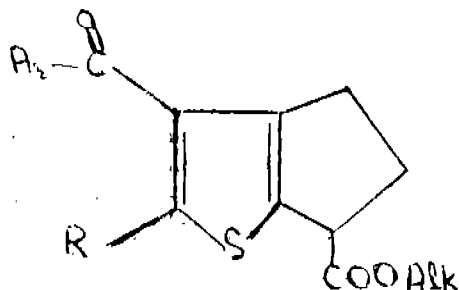
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

2 Claims

Process for preparation of 5, 6-dihydro-4H-cyclopenta [b] thiophene-6-carboxylic acids of the formula I of the accompanying drawings



in which Ar is phenyl, optionally substituted by one or more halogen atoms or by a lower alkyl, lower alkoxy, hydroxy, nitro or dimethylamino group of the kind such as herein described; thienyl optionally substituted by a halogen atom or a lower alkyl group; or furyl group of the kind such as herein described; and R is a lower alkyl radical characterised in that an ester of the general formula V of the drawings



in which Ar and R have the meanings given above and Alk is a lower alkyl group, is hydrolyzed in an acid or alkaline medium, preferably with an alkaline carbonate.

Uses : The compound prepared is used for the treatment of inflammation, pain and pyrexia.

Compl. specn. 45 pages.

Drgs. 3 sheets

Ind. Cl. : 32 F₂ (a).

166472

Int. Cl.⁴ : C 07 C 99/00.

A PROCESS FOR THE SYNTHESIS OF L-TYROSYL-D-ALANYL-GLYCYL-L-N-METHYL-PHENYL ALANYL-METHIONINE-N-SUBSTITUTED AMIDES AND THEIR CORRESPONDING SULFOXIDES DERIVATIVES.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

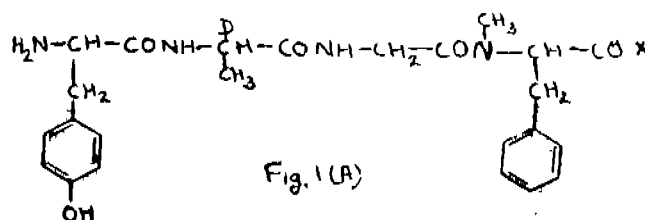
Inventors : SHUBHA DEV SHARMA, KRISHNA BEHARI MATHUR, RAM RAGHUBIR, GYANENDRA KUMAR PATNAIK, RIKHAB CHAND SRIMAL AND BHOLA NATH DHAWAN.

Application for Patent No. 636/Del/85 filed on 5th August, 1985.

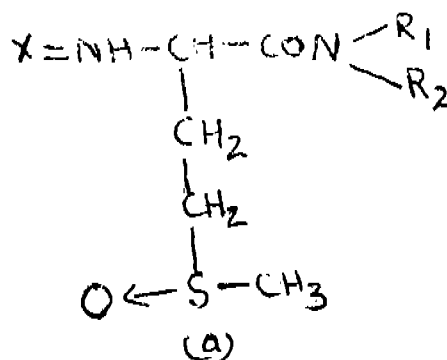
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

5 Claims

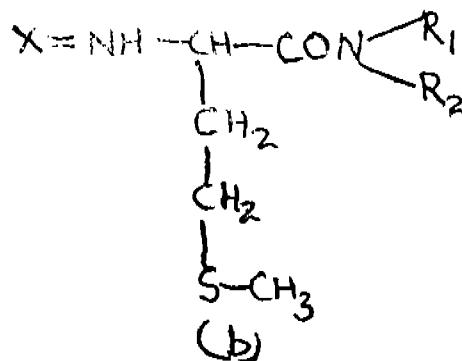
A process for the synthesis of L-tyrosyl-D-alanyl-glycyl-L-N-methylphenyl-L-methionine-N-substituted amides and their corresponding sulfoxides of general formula shown in fig. 1A



where X represents a radical formula (a) or (b) shown in fig. 1B

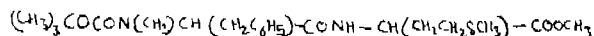


OR

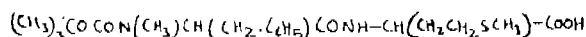


where R_1 is hydrogen, R_2 is alkyl, aryl or aralkyl radical such as methyl, phenyl or benzyl radicals, and $NR_1 R_2$ constitutes a part of a cyclic amine such as piperidine or ethylemine which comprises :

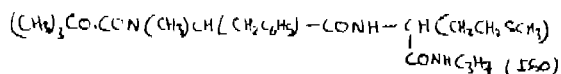
- (a) reacting t-butyloxycarbonyl-L-N-methylphenylamine with isobutylchloroformate and L-methionine methyl-ester in the presence of N-methylmorpholine, to obtain t-butyloxycarbonyl-L-N-methyl phenyl-ester of the formula (II) shown in fig 2 (step 1).



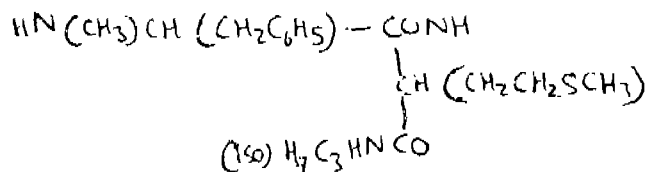
- (b) hydrolysing the ester of the formula II by known method to form the corresponding dipeptide acid of formula (III) shown in fig. 2 (step 2).



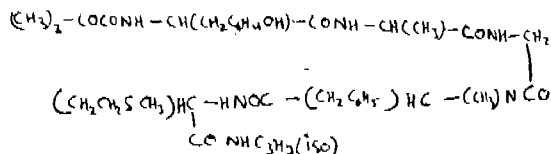
- (c) reacting the acid of the formula III with isobutylchloroformate and isopropylamine in the presence of N-methylmorpholine to obtain t-butyloxycarbonyl-L-N-methylphenylalanyl-L-methionine-N-isopropylamide of formula (IV) shown in fig. 2 (step 3).



- (d) treating the t-butyloxycarbonyl-L-N-methyl phenyl alkyl-L-methionine-N-isopropylamide of the formula IV shown in fig. 2 thus obtained with formic acid in the presence of anisole and ethanedithiol to obtain N-methylphenylalanyl-L-methionine-N-isopropylamide of formula (V) shown in fig. 2 (step 4).



- (e) reacting the N-methyl phenyl alanyl-L-methionine-N-isopropylamide of the formula V shown in fig 2 with the mixed anhydride obtained from t-butyloxycarbonyl-L-tyrosyl-D-alanyl-glycine and isobutylchloroformate in the presence of N-methylmorpholine to obtain the protected pentapeptide of formula (VI) shown in fig. 2 (step 5),



- (f) treating the protected pentapeptide of the formula (VI) shown in fig. 2 with formic acid in the presence of anisole and ethanedithiol followed by treatment with ion exchange resin to form the desired pentapeptide of formula shown in fig. 1A where X represent a radical formula (b) of fig. 1B where R_1 and R_2 have the meanings given above (step 6) and, if desired,

- (g) subjecting the pentapeptide of the formula shown fig. 1A where X represents a radical of the formula (b) of fig. 1B and R_1 & R_2 have the meanings given above to oxidation by known methods, to form the

corresponding sulfoxides of formula in fig. 1A where X represents a radical of formula (a) of fig. 1B where R_1 and R_2 have the meaning given above.

Uses : The amino acid compounds of the present invention exhibit potent analgesic activity.

Compl. specn. 18 pages.

Drgs. 4 sheets

Ind. Cl. : 55 D.

166473

Int. Cl.⁴ : C 07 D 231/56.

A PROCESS FOR PRODUCING AN INSECTICIDAL PYRAZOLINE.

Applicant : FMC CORPORATION, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF DELAWARE, UNITED STATES OF AMERICA, OF 2000 MARKET STREET, PHILADELPHIA, PENNSYLVANIA 19103, UNITED STATES OF AMERICA.

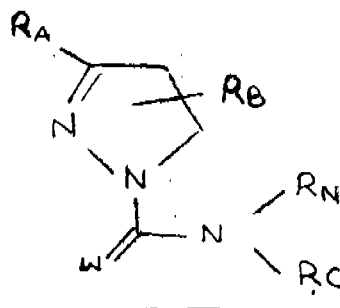
Inventor : ANGELINA JOY DUGGAN.

Application for Patent No. 864/Del/85 filed on 16th October, 1985.

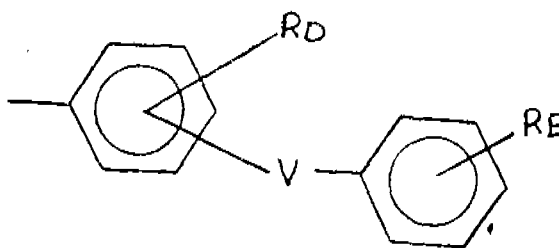
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

2 Claims

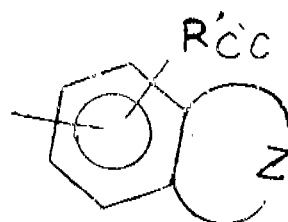
A process for producing an insecticidal pyrazoline of formula II



of the drawings characterized by reacting equimolar amounts of a compound of the formula $R_C-N=C-W$ wherein R_C is of the formula III



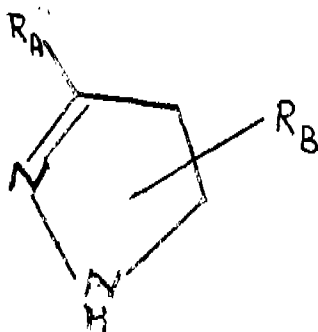
of the drawing in which R_D is selected from hydrogen and lower alkyl; R_E is selected from lower alkyl, halogen, lower alkoxy, lower haloalkoxy, lower haloalkyl, cyano, nitro, $-NR_1R_2$ wherein R_1 and R_2 are independently lower alkyl, and $-SO_n R_H$ wherein R_H is lower alkyl and n is 0-2; or a radical of formula IV of the drawings



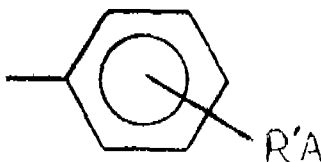
in which Z is a bridge of the formula $[O-(CR'_{CA} R'_{CB})-C_{c'}]_{c'}$

wherein c is 1—3, c' is 0 or 1, c+c' is at least 2 but no greater than 3, R'CA and R'CB are independently selected from hydrogen, halogen and lower alkyl, with the proviso that R'CA and R'CB are not both hydrogen when c is 1 and c' is 1, and R'CB is selected from hydrogen, halogen, lower alkyl, lower alkoxy, lower haloalkoxy, and lower haloalkyl; and V and W are independently oxygen or sulfur;

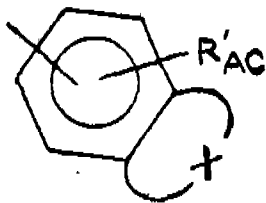
with a compound of the formula I of the drawings



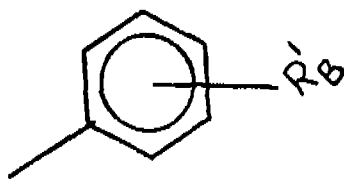
wherein RA is of the formula V of the drawings



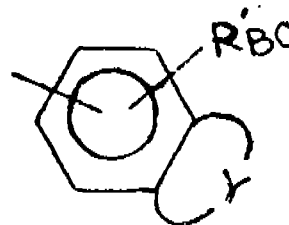
in which R'A is selected from hydrogen, halogen, lower alkyl, lower alkoxy, lower haloalkoxy, lower alkynyloxy and lower haloalkyl; or a radical of formula VI of the drawings



in which X is a bridge of the formula $[O-(CR'_{AA} R'_{AB})-O'_{a'}]_{a'}$ wherein a' is 1—3, a' is 0 or 1, a+a' is at least 2 but no greater than 3, R'AA and R'AB are independently selected from hydrogen, halogen and lower alkyl, and R'AC is selected from hydrogen, halogen, lower alkyl, lower alkoxy, lower haloalkoxy, and lower haloalkyl; Ra is a 4—or 5—substituent



of the formula VII of the drawing in which R'B is selected from hydrogen, halogen, lower alkyl, lower alkoxy, and lower haloalkyl; or a radical of formula VIII of the drawings



in which Y is a bridge of the formula $[O-(CR'_{BA} R'_{BB})]_{b'}$

wherein b is 1—3, b' is 0 or 1, b+b' is at least 2-but no greater than 3, R'BA are independently selected from hydrogen, halogen and lower alkyl, and R, BB is selected from hydrogen, halogen, lower alkyl, lower alkoxy, lower haloalkoxy, and lower haloalkyl; at room temperature in diethyl ether containing a catalytic amount of triethylamine to produce an insecticidal pyrazoline of formula II of the drawings where RA, RB, RC, and W are as defined above and RN is hydrogen.

Compl. specn. 54 pages.

Drgs. 2 sheets

Ind. Cl. : 32 F₂ (c).

166474

Int. Cl. : C 07 C 133/16.

A PROCESS FOR PREPARING A LUBRICANT ADDITIVES AQUEOUS SYSTEM.

Applicant : THE LUBRIZOL CORPORATION, OF 29400 LAKELAND BOULEVARD, WICKLIFFE, OHIO 44092, UNITED STATES OF AMERICA, A CORPORATION OF THE STATE OF OHIO, U.S.A.

Inventor : WILLIAM ALBERT HEGGINS.

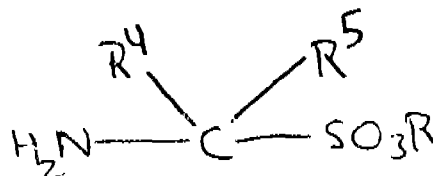
Application for Patent No. 904/Del/85 filed on 30th October, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

8 Claims

A process for preparing a lubricant additive aqueous system which functions as emulsifiers, dispersing agents and thickeners in the lubricants or fuel oils, said process comprises :

- (a) reacting a hydrocarbyl substituted succinic acid or anhydride with an amino hydrocarbyl sulfonic acid or salt thereof, having the Formula Ia



of the drawings where R⁴ and R⁵ are each independently hydrogen alkyl or aromatic and R is hydrogen or cation, to form an imido hydrocarbyl sulfonic acid or salt thereof: and

- (b) dispersing the imido hydrocarbonyl sulfonic acid or salt thereof in an aqueous medium as herein described to form a system containing at least 70 percent by weight water and 3 to 6 percent by weight of the said acid or salt.

Compl. specn. 44 pages.

Drg. 1 sheet

Int. Cl.⁴ : C 07 D 241/38.

166475

AN IMPROVED METHOD FOR THE PREPARATION OF 3-ETHYL-8-METHYL-1, 3, 8-TRIAZABICYCLO (4, 4, 0) DECAN-2-ONE (CENTPERAZINE).

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

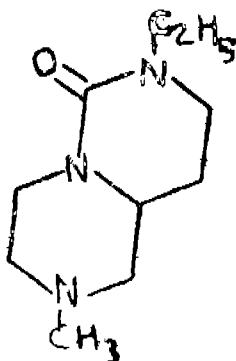
Inventors : MOHINDER SINGH ANAND, VIJAY KUMAR AGARWAL, RAM PRATAP, SATYAVAN SHARMA, SUNIL KRISHNA CHATTERJEE AND NITYA ANAND.

Application for Patent No. 1050/Del/85 filed on 12th December, 1985.

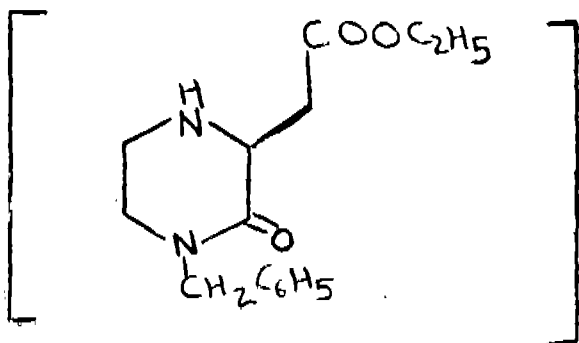
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

8 Claims

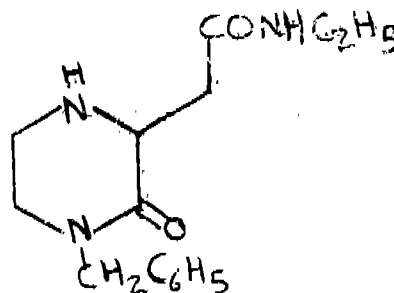
A process for the synthesis of 3-ethyl-8-methyl-1, 3, 8-triazabicyclo (4, 4, 0) decan-2-one (Centperazine) having the formula IX, shown in the accompanying drawing, which comprises :



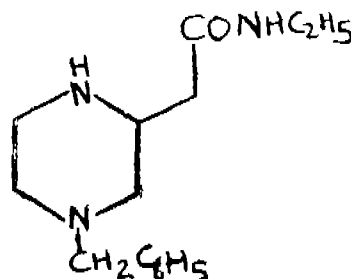
- (a) reacting N-benzyl ethylenediamine of the formula I with diethylmaleate of the formula II to give 1-benzyl-3-(Carbethoxymethyl)-2-oxopiperazine of the formula III



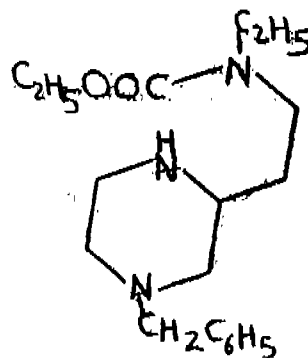
- (b) heating the ester of the formula III with ethylamine to produce the amide 1-benzyl-3-(N-ethylacetamido)-2-oxopiperazine of the formula (IV)



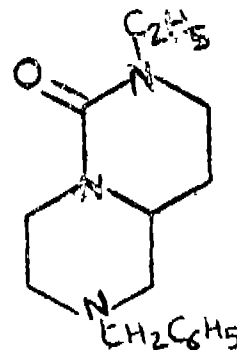
- (c) reducing the amide of the formula IV by known methods to give the amine 1-benzyl-3-[β-(N-ethylamino) ethyl] piperazine of the formula (V).



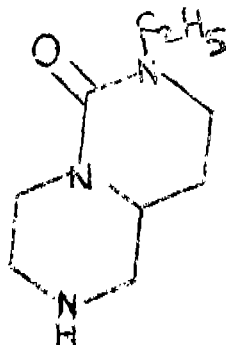
- (d) treating the compound of the formula V, with ethylchloroformate at 0°C at pH 3-3.5 produce monocarbamate 1-benzyl-3-[β-(N-carbethoxy ethylamino) ethyl] piperazine of the formula (VI).



- (e) cyclising by known methods the monocarbamate of the formula (VI) to yield 8-benzyl-3-ethyl-1, 3, 8-triazabicyclo [4, 4, 0] decan-2-one of the formula (VIII).



- (c) reducing by known methods the benzyl compound of the formula (VII), to yield 3-ethyl-1, 3, 8-triazabicyclo- (4, 4, 0) decan-2-one of the formula (VIII); and



- (g) methylating by known methods the compound of the formula VIII to give 3-ethyl-8 methyl-1, 3, 8 triazabicyclo u 4.4.0 decane-2-one of the formula IX (Centperazine).

(Uses—Used as Filasicide).

Compl. specn. 11 pages

Drg 1 sheet

Ind. Cl. : 55 D₂.

166476

Int. Cl.⁴ : A 01 N 31/14.

A PROCESS FOR THE PREPARATION OF NOVEL GERANIOL BASED DI ETHERS USEFUL AS INSECT CONTROL AGENTS.

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFT MARG, NEW DELHI-110 001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XVI OF 1860).

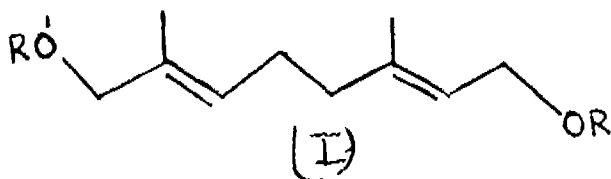
Inventors : SARIT ANANT PATWARDHAN, RAVINDRA NATH SHARMA, ANIL PURUSHOTTAM PHADNIS, PUSHPA DUTTA GUND AND ILYAS VAZIR BHALDAR.

Application for Patent No. 1053/Del/85 filed on 12th December, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

3 Claims.

A process for the preparation of new geraniol based diethers of the formula (I)



wherein R and R' have the meanings given below :

R

- (a) benzyl
- (b) benzyl
- (c) p-methyl benzyl
- (d) p-methyl benzyl
- (e) phenyl
- (f) phenyl

R'

- methyl
- ethyl
- meethyl
- ethyl
- methyl
- ethyl

11-67GI/90

(g) methyl

(h) methyl

(i) ethyl

(j) ethyl

benzyl

p-methyl benzyl

p-methyl benzyl

benzyl

etherifying 8 hydroxy mono ethers of the formula (II)



wherein R is alkyl, benzyl, p-methyl benzyl or phenyl with alkyl or benzyl halides in the presence of sodium hydride and dimethyl sulfoxide.

Uses : The product of the invention is useful as insect control agent.

Compl. specn. 8 pages

Drg. 1 sheet

Ind. Cl. : 134 A.

166477

Int. Cl. : B 60 S 1/02, 1/04, 1/06, 1/18.

"WIPER ARM".

Applicant : CHAMPION SPARK PLUG EUROPE S.A., A BELGIAN CORPORATION, OF AVENUE LEPOLD III, 2A 7120 BINOHE, BELGIUM.

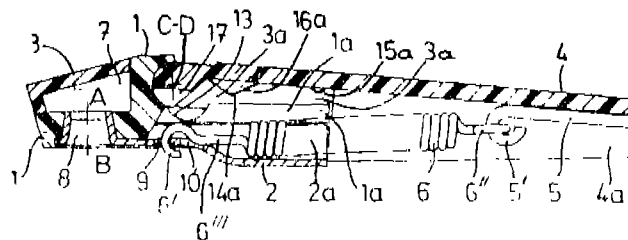
Inventors : ALAN SOUTH & ALAN KENNEY.

Application for Patent No. 534/Del/86, filed on 17 June, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

12 Claims

A wiper arm, in particular for motor vehicles, comprising a mounting head (1) provided with a cap (3) and comprising a channel (4) which is rotatably attached to the mounting head (1) characterized in that the cap (3) of the mounting head (1) is provided with two extensions (3a, 3b) extending substantially parallel to the longitudinal axis of the wiper arm, beyond said articulation (C-D) between the mounting head (1) and the channel (4), that said extensions (3a, 3b) of the cap are provided with means for locking the channel (4) in at least two different position with respect to the mounting head (1) and that said means consist of two recesses (15a, 15b) having first dimensions for maintaining a first locking position of the channel (4) and of the two other recesses (14a, 14b) having dimensions larger than the first dimensions, for maintaining a second locking position of the channel (4).



Compl. specn. 11 pages.

Drgs. 2 sheets

Ind. Cl.: 20 B.

166478

Int. Cl.⁴: B 43 L 1/02.

"AN IMPROVED PROCESS FOR THE PRODUCTION OF MOULDED SLATE WITH INBUILT FRAME".

Applicant: COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, INDIA AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventor(s): DIP CHANDRA SAIKIA, UMESH CHANDRA BORA, BANI PRASAD CHALIHA & JOGEN-DRA NATH BARUA.

Application for Patent No. 605/Del/86 filed on 10th July, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

2 Claims

An improved process for the production of moulded slate with in-built frame comprising mixing a thermosetting resin with agro-industrial waste like saw dust, bamboo dust, rice husk and like, feeding the mixture in to a mould inserting mould in hydraulic press for heating the mixture the pressure of the mould being gradually increased 8 kg/cm^2 to 12 kg/cm^2 & maintained at that pressure for a period of 8–10 minutes at a temperature of $140 \pm 50^\circ\text{C}$.

Compl. specn. 6 pages.

Ind. Cl.: 153 D.

166479

Int. Cl.⁴: B 65 B 43/42.

"MECHANISM FOR PLACING VALVE BAGS TO BE FILLED ON THE FILLING NOZZLE OR NOZZLES OF A PACKING MACHINE".

Applicant: HAVER & BOECKER, OF CARL-HEVER-PLATZ, 4740 OFLDE 1, WEST GERMANY, A WEST GERMAN COMPANY.

Inventors: KONRAD BAINING, ALOIS COMBRINK & PERER GERDHENRICH.

Application for Patent No. 616/Del/86 filed on 11th July, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

28 Claims

A mechanism for placing valve bags to be filled on the filling nozzle or nozzles of a packing machine with a separating mechanism for the removal of the bags from a storage unit, for instance a bundle, a roll and a unit fitted with suckers for opening the valve, characterised in that the suckers (9 and 18) engage the valve bag (18) on its side walls in the range of the valve (17), that a roof-shaped guide track (19) open at the bottom is installed above the suckers (9 and 10) for the upper section of the valve bag (18), and that the drive means (1 and 6) for the transportation of the bag (18) engage the said bag immediately underneath the valve area (17).

Compl. specn. 18 pages.

Drgs. 6 sheets

Ind. Cl.: 32 F₀ (b).

166480

Int. Cl.⁴: C 07J 75/00.

"A PROCESS FOR THE PREPARATION OF 17 α -METHYL-4-ANDROSTENO (3, 2-c) ISOXAZOLE-4, 17-DIOL".

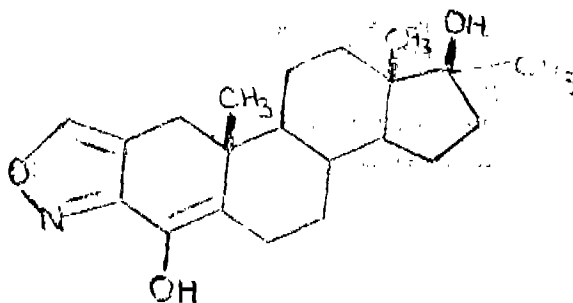
Applicant & Inventors: DHARAM PAUL JINDAL AND MANGE RAM YADAV, BOTH OF THE DEPARTMENT OF PHARMACEUTICAL SCIENCES, PANJAB UNIVERSITY, CHANDIGARH 160014, INDIA, BOTH INDIAN CITIZENS.

Application for Patent No. 999/Del/86 filed on 17 November, 1986.

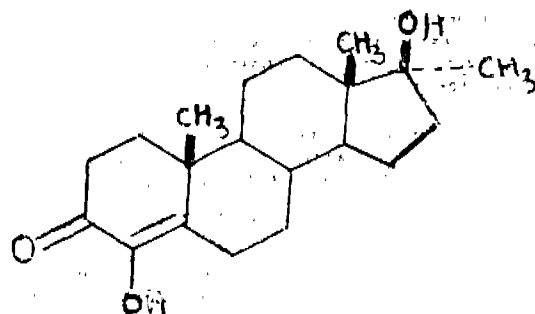
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

1 Claim

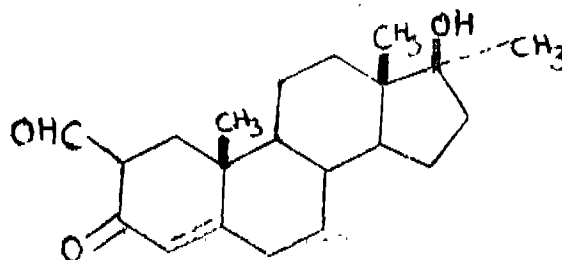
Process for the preparation of 17 α -methyl-4-androsteno (3, 2-c) isoxazole -4, 17-diol of the formula (3)



of the accompanying drawing which comprises the step (i) formylation of 4, 17-dihydroxy-17 α -methyl-4-androsten-3-one of the formula (1)



using ethyl-formate-Sodium methoxide in organic solvent (pyridine), and step (ii) treatment of 2-formyl-4, 17-dihydroxy-4-androsten-3-one of the formula (2)



with hydroxylamine hydrochloride in ethanol to obtain 17 α -methyl-4-androsten (3, 2-c) isoxazole, 17-diol of the formula (3).

Compl. specn. 4 pages

Drg. 1 sheet

Ind. Cl.: 189 & 55 F.

166481

Int. Cl.: A 61 K 7/16.

"A METHOD FOR PREPARING A STABLE SINGLE DOSE ORAL PRODUCT"

Applicant : COLGATE PALMOLIVE COMPANY, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF DELAWARE, UNITED STATES OF AMERICA, OF 300 PARK AVENUE, NEW YORK, NEW YORK 10022, UNITED STATES OF AMERICA.

Inventors : LINDA JOY VELLEKOOP & JORDAN BARTH.

Application for Patent No. 1156/Del/86 filed on 31st December, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

7 Claims

A method of preparing a stable single unit dose oral product which comprises shaping an alginate gel mixture comprising about 0.4—1.5% by weight sodium alginate, flavor, humectant water, about 2—15% by weight vegetable oil into discrete single unit dose form; immersing said discrete unit dose form into an aqueous setting bath containing a calcium ion source of the kind such as herein defined which crosslinks with alginate and gels said discrete single unit dose form rinsing said gelled unit dose form; and drying said unit dose form.

Compl. specn. 23 pages.

Int. Cl.: H 04 J 5/00.

166482

"DIGITAL TIME DIVISION COMMUNICATIONS APPARATUS"

Applicant : THE GENERAL ELECTRIC COMPANY P.L.C., A BRITISH COMPANY, OF 1 STANHOPE GATE, LONDON W1A 1EH, ENGLAND.

Inventors : ROBERT CHEETHAM AND MARTIN ROBERTS.

Application for Patent No. 823/Del/85 filed on 7th October 1985.

Convention date 8th October, 1984/8425375/(U.K.).

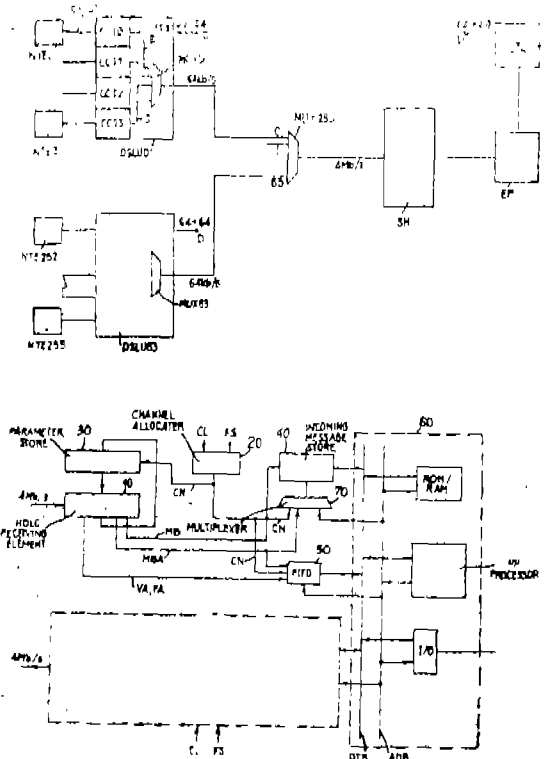
Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

4 Claims

Digital time division communications apparatus for handling a plurality of formatted data information channels, each containing signalling information, the apparatus comprising :

- a line circuit for connection to each data information channel;
- a multiplexer connected to the line circuits for multiplexing the plurality of formatted information channels into a single time division, multiplexed input data stream in which less than one frame of each formatted channel is present in each frame of the multiplexed streams, and a demultiplexing circuit arrangement connected to the output of the multiplexer and which comprises receiving and processing means which receive successive bits of the multiplexed input data stream, process the received bits successively, detect when a complete message byte from an information channel has been received, and write each detected message byte into an incoming message store for subsequent transmission, the receiving and processing means also comprising an input channel allocation means which provides an input channel number for each new received

bit of the multiplexed input data stream, and an input channel parameter store connected to the receiving and processing means and which responds to each channel number to provide the receiving and processing means with a set of channel parameters, the set of channel parameters being processed by the processing means with the relevant new bits to detect if the received new bit completes a message byte for its originating channel, and to provide a new set of channel parameters for that channel which is written back into the channel store.



Compl. specn. 18 pages.

Drgs. 9 sheets

Ind. Cl.: 32 F₂ (a)

166483

Int. Cl.: C 07 C 95/00.

"A PROCESS FOR THE PRODUCTION OF 2-AMINO-PHENYL ARYL METHANONES FROM 2-ISOCYANATO-BENZOYL CHLORIDE"

Applicant : COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH, RAJ MARG, NEW DELHI-110001, INDIA AND INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1960).

Inventors : B. K. MISRA, B. P. ACHARYA, Y. R. RAO & S. N. MAHAPATRA.

Application for Patent No. 980/Del/85 filed on 22nd November, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

9 Claims

A process for the preparation of 2-aminophenyl aryl methanones from 2-isocyanatobenzoyl chloride which comprises :

- (1) preparation of 2-isocyanatobenzoyl chloride (ICB) from isatoic anhydride by reacting isatoic anhydride with thionyl chloride in the presence of bases like pyridine, picoline, quinolane;

- (2) jurification of ICB by distillation under reduced pressure;
- (3) acylating the purified ICB with aromatic solvent such as hereindescribed in the presence of Lewis acids such as hereindescribed;
- (4) adding ice cold water to the complex reaction mixture so obtained;
- (5) separating the solvent layer, extracting 2-amino phenyl aryl methanones contained in the aqueous layer with the same aromatic solvent used in step (3) above;
- (6) distilling the solvent; and
- (7) purifying the resultant 2-amino phenyl aryl methanone by known methods.

Compl. specn. 8 pages.

Ind. Cl. : 140 A2 .

166484

Int. Cl.⁴ : C 01 M 125/06.

"A LUBRICATING OIL COMPOSITION CONTAINING LESS THAN ABOUT 0.1% BY WEIGHT OF PHOSPHORUS".

Applicant : THE LUBRIZOL CORPORATION OF 29400 LAKELAND BOULEVARD, WICKLIFFE, OHIO 44902 U. S. A. A CORPORATION OF THE STATE OF OHIO, U. S. A.

Inventor(s) : KIRK E. MERSON DAVIS.

Application for Patent No. 987/Del/85 filed on 25th November, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

12 Claims

A lubricating oil composition containing less than about 0.1% by weight of phosphorus said composition comprising an oil of lubricating viscosity, and at least one oil-soluble sulfur-containing material which comprises the reaction product of sulfur and a Diels-Alder adduct in a molar ratio of less than 1.7 : 1 wherein the adduct is an adduct of at least one dienophile with at least one aliphatic conjugated diene.

Compl. specn. 41 pages.

Drgs. 3 sheets

Ind. Cl. : 76 F, 138 D.

166485

Int. Cl.⁴ : B 27 F 7/02, 7/06.

"MODULAR PNEUMATIC TOOL FOR DRIVING FASTENERS SUCH AS STAPLES AND NAILS".

Applicant : SENCO PRODUCTS, INC., A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF OHIO, OF 8485 BROADWELL ROAD, CINCINNATI, OHIO 45244, UNITED STATES OF AMERICA.

Inventors : ROBERT JOSEPH HAIL, & DONALD JOSEPH MASSARI, JR.

Application for Patent No. 1023/Del/85 filed on 4th December, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office Branch, New Delhi-110005.

22 Claims

A modular pneumatic tool for selectively driving fasteners such as staples and nails from respective magazines therefor, said modular pneumatic tool comprising :

- an air motor having a cylinder, piston and firing valve;
- a fastener driver connected to said piston, for driving fasteners;

an air motor housing containing said air motor, said air motor housing having an open end with said fastener driver extending therethrough;

at least one fastener magazine having forward and rearward ends;

at least one handle having a forward end and a rearward end;

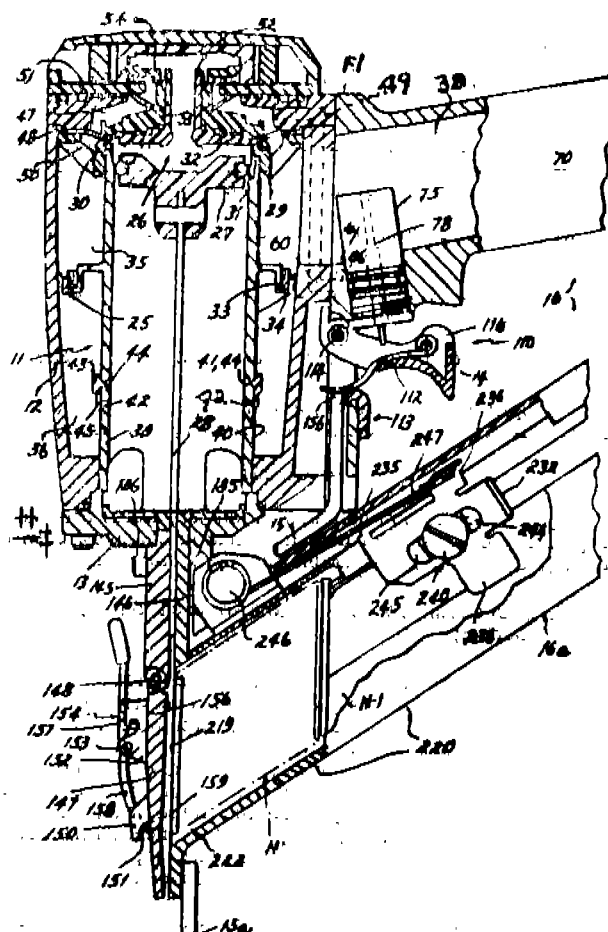
said fastener magazine and said handle being attached together at respective rearward ends thereof and independent of each other at said forward ends thereof;

a mounting plate disposed on a forward end of said handle for interconnecting said handle with said air motor and air motor housing;

said mounting plate and said forward end of said handle being releasably secured to a side of said air motor housing;

an adapter plate mounted on an underside of said housing and closing off said open end thereof;

said driver extending through said adapter plate, said adapter plate receiving and attaching said fastener magazine thereto in an operative position for serially feeding respective said fasteners to a position defining a driving station beneath said driver from which said fasteners are driven by said driver, and a forward end of said fastener magazine being mountable to said adapter plate.



Compl. specn. 56 pages.

Drgs. 7 sheets

Ind. Cl. : 189.

166486

Int. Cl. : A 61 K 7/00, C 11 D 9/22.

TOILET SOAP CONTAINING POLYMERIC THICKENER.

Applicant : THE B. F. GOODRICH COMPANY, A NEW YORK CORPORATION, OF 500 SOUTH MAIN STREET, AKRON, OHIO 44318, U.S.A.

Inventor : MADUKKARAI KRISHNARAO NAGARAJAN.

Application for Patent No. 1024/Del/85 filed on 4th December, 1985.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

11 Claims

A toilet soap in solid form devoid of cationic polymer selected from cellulose derivatives containing quaternary ammonium groups and cyclic polymers which soap has improved processability, improved texture, improved humectant properties, and improved lather quality and quantity comprising :

- (a) a major proportion of a soap base in amount of up to 95% selected from natural soap as herein described, or synthetic detergent as herein described or mixtures thereof; and
- (b) 0.01 to 10% by weight of a thickener selected from homopolymers of mono- and dicarboxylic acids of 3 to 5 carbon atoms and copolymers thereof with up to 75% by weight of one or more copolymerizable monomers of the kind as herein described, said copolymers containing acrylic amide in the amount of not more than 30% by weight of the total monomers copolymerised, homopolymers of lower alkyl acrylates and copolymers thereof with one or more suitable comonomers as herein described, said copolymers containing lower alkyl acrylates in an amount greater than 50% by weight of the total monomers, salts of said thickeners; and mixtures of said thickeners and salts thereof.

Compl. specn. 29 pages.

Drg. 1 sheet

Ind. CLASS : 9 D

166487

Int. CL. : H01F 1/04.

METHOD OF FORMING AN ISOTROPIC HARD MAGNETIC ALLOY.

Applicant : ENERGY CONVERSION DEVICE, INC. A CORPORATION OF THE STATE OF DELAWARE, OF 1675 WEST MAPLE ROAD, TROY, MICHIGAN 48084, UNITED STATES OF AMERICA.

Inventor(s) : RICHARD BERGERON, R. WILLIAM MCCALLUM, KAREN CANAVAN & JOHN KEEN.

Application for Patent No. 116/Del/86, filed on 11th February, 1986.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

5 Claims

A method of forming an isotropic hard magnetic alloy having (a) magnetic retention parameter, Q, greater than 1.0, an isotropic magnetic energy product greater than 15 megagauss oersteds and a major fraction of a tetragonal iron-rare earth-boron phase, comprising the steps of :

- (i) forming in any known manner a substantially homogeneous melt comprising transition metal as herein described, boron, a modifier of the kind as herein described, and a rare earth metal of the kind as herein described;

- (ii) discharging the substantially homogeneous melt through an orifice onto a quench surface, said quench surface moving with respect to the orifice at a velocity and direction so as to rapidly solidify the melt into the quench surface; and

- (iii) recovering in any known manner a quenched alloy.

Compl. specn. 80 pages

Drg. 30 sheets

Ind. CLASS : 9A

166488

Int. CL. : C22C 21/00, 21/10, 21/12

A PROCESS FOR THE PRODUCTION OF A SHAPED ARTICLE.

Applicant : THE SECRETARY OF STATE FOR DEFENCE IN HER BRITANNIC MAJESTY'S GOVERNMENT OF THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND, OF WHITEHALL, LONDON SW1A 2HB, ENGLAND, A BRITISH CORPORATION SOLE.

Inventor(s) : BRIAN EVANS & CHRISTOPHER JOHN PEEL.

Application for Patent No. 167/Del/86 filed on 26th February, 1986.

Divisional to Application No. 80/Del/83 filed on 8th February, 1983.

Ante dated to 8th February, 1983.

Convention date February 26, 1982/8205746, March 26, 1982/8209010 (U.K.).

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

5 Claims

A process for the production of a shaped article which is a finished or semi-finished engineering product such as a forging, an extrusion, a plate or sheet from an alloy having the following composition measured in percentage by weight :—

lithium	2.0 to 2.8
magnesium	0.4 to 1.0
copper	1.0 to 1.5
zirconium	up to 0.2
manganese	up to 0.5
nickel	up to 0.5
chromium	up to 0.5
aluminium	balance (apart from incidental impurities).

wherein the process comprises the following procedures :—

- (i) melting within a refractory vessel a source material such aluminium ore to yield a known quantity of aluminium of known purity;
- (ii) introducing to the melt, in proportions tailored for an intended product alloy having a composition within the range specified above, copper and at least one of the group consisting of zirconium, manganese, nickel and chromium;
- (iii) establishing a melt temperature sufficient to ensure that the above mentioned alloying additions are readily dissolved in the aluminium base;
- (iv) cooling the melt, or allowing the melt to cool, to a temperature sufficiently low that magnesium has a low vapour pressure threat and thereupon adding lithium and magnesium to the melt in proportions tailored for the intended product alloy;
- (v) applying a conventional liquid metal treatment to the melt to provide grain inoculation, filtration and degassing;

- (vi) casting an ingot from the melt from a controlled superheat temperature according to conventional techniques;
- (vii) stress relieving and homogenising the ingot at a temperature not exceeding 560 degrees centigrade for a time dependent upon the mass of the ingot;
- (viii) forming or reforming the ingot to the desired shape by hot or cold working, by extrusion, by forging or by remelting and casting;
- (ix) solution treating the shaped article at a temperature sufficient to dissolve the alloying constituents into solid solution within the aluminium base without causing incipient melting within the shaped article; and
- (x) quenching or air cooling the shaped article to retain the alloying constituents in solid solution within the aluminium base.

Alloy of the present invention is suitable for aerospace applications and sea vehicles.

Compl. specn. 12 pages.

Ind. Cl. 155 F₂, 73.

166489

Int. Cl.⁴ : D 06 M 13/52.

"A NEW DURABLE CHEMICAL FINISHING PROCESS FOR PRODUCTION OF ANTIBACTERIAL FABRICS".

Applicant : INDIAN COUNCIL OF AGRICULTURAL RESEARCH, KRISHI BHAVAN, DR. RAJENDRA PRASAD ROAD, NEW DELHI-110001, INDIA, HEREIN REFERRED AS ICAR, A SOCIETY REGISTERED IN INDIA UNDER THE SOCIETIES REGISTRATION ACT, 1860 (21 OF 1860).

Inventors : SHRI NATH PANDEY, PREM NAIR & ABDUL JABBAR SHAIKH.

Application for Patent No. 738/Del/86 filed on 18th August, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110005.

8 Claims

A durable chemical finishing process for production of anti-bacterial fabrics, comprising :

impregnating the fabric with a bath solution containing 12% of hydrogenperoxide, zinc acetate (4% to 20%), acetic acid (4% to 16%), non-ionic polyethylene emulsion softener (1%—2%) and 0.1% of anionic alkylsulphonate as wetting agent on a padding machine to wet pick up of 20% to 80%, drying in an oven at 70°C for 7 minutes and curing at 150°C for 3 minutes and washing to remove the unreacted chemicals and finally air drying.

Compl. specn. 10 pages.

Ind. Cl. : 35 C.

166490

Int. Cl.⁴ : C 04 B 7/43, 28/00.

"A PROCESS FOR THE PREPARATION OF CLINKER".

Applicant : NATIONAL COUNCIL FOR CEMENT AND BUILDING MATERIALS, M10, SOUTH EXTENSION II, NEW DELHI-110049 (A BODY UNDER THE GOVERNMENT OF INDIA DEVOTED TO RESEARCH TECHNOLOGY DEVELOPMENT AND TRANSFER EDUCATION AND INDUSTRIAL SERVICES).

Inventors : HOSHGRAHARA CHANDRASEKHARIAH VISVESVARAYA, DINSHAW BOMANJI-IRANI SHIBANJI RAINA, PALAPARTI BHASKARA RAO, KRISHNA MOHAN SHARMA, RAKESH BHARGAVA & MOHAMMAD MUJTABA ALI.

Application for Patent No. 843/Del/86 filed on 24th September, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110005.

5 Claims

A process for the preparation of cement clinker which comprise in preparing a mix from a lime, silica, alumina, iron and sulphur source such as hereing described subjecting said mix to the step of calcination/clinkerzation at a temperature of from 1200 to 1300°C and cooling the calcined product to obtain a linker consisting of 35 to 45% by weight of dicalcium silicate 25 to 35% by weight of calcium sulpho aluminate, 15 to 20% by weight of tetracalcium aluminoferrite and 1 to 10% by weight of calcium sulphate.

Compl. specn. 7 pages.

Ind. Cl. : 80 A.

166491

Int. Cl.⁴ C 04 B 38/00.

"A PROCESS FOR THE PREPARATION OF NEW CERAMIC MEMBRANE FOR WATER FILTRATION".

Applicant : COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH, RAFI MARG, NEW DELHI-110001, INDIA, AN INDIAN REGISTERED BODY INCORPORATED UNDER THE REGISTRATION OF SOCIETIES ACT (ACT XXI OF 1860).

Inventors : RAVINDRA KUMAR SHARMA, CHARMARTHY BUCHI RAJU & MAHENDRA PATEL.

Application for Patent No. 1029/Del/86 filed on 26th November, 1986.

Complete specification left on 24th November, 1987.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972), Patent Office Branch, New Delhi-110005.

7 Claims

A process for the preparation of new ceramic membrane for water filtration which comprises grinding a zeolite mineral to a suitable size, sieving the ground mineral, blending the group mineral with a binder, such as herein described, compacting the resultant product at a pressure of 300—500 kg/sq cm and sintering at a temperature 1000°C.

Provisional Specification 5 pages.

Compl. specn. 7 pages.

Int. Cl.⁴—D 01 H 7/892.

166492

A METHOD AND AN APPARATUS FOR THREAD JOINING IN AN OPEN AND SPINNING APPARATUS.

Applicant : SCHUBERT & SALZER MASCHINENFABRIK AKTIENGESELLSCHAFT, A GERMAN COMPANY OF FRIEDRICH-EBERT STRASSE 84, 8070 INGOLSTADT, GERMANY.

Inventors : (1) PETER ARTZT, (2) GERHARD EGBERS (3) HEINZ MULLER. (4) EBERHARD GRIMM, (5) FRANZ SCHREYER.

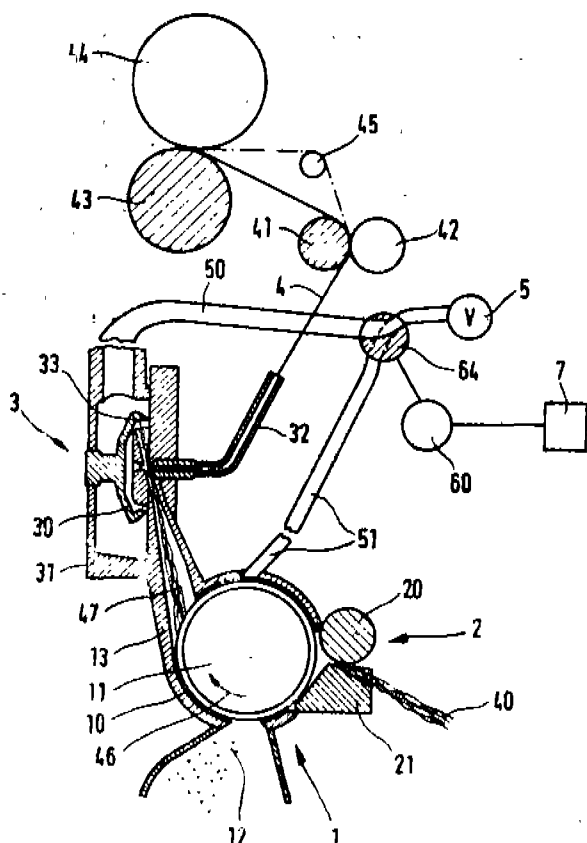
Application No. 782/Mas/85 filed October 4, 1985.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

23 Claims

A method of joining threads in a rotor open-end spinning apparatus having a feed apparatus for supplying a fibre sliver, and an opening cylinder which is arranged in a housing and from which the separated fibres are supplied, by means of a suction stream for thread formation, via a feed duct to a fibre collecting surface of a spinning rotor which is mounted in a casing, and in which method, during the piecing operation, a thread end is returned to the fibre collecting surface from which the previously returned thread is removed again while fibres are continuously bound in, and in which the feed apparatus is switched on in preparation for the piecing operation and, when the feed apparatus is running, the fibre stream is reflected in its fibre transportation path to the fibre collecting surface and is supplied to a suction means outside the fibre transportation path on the peripheral wall of the fibre housing surrounding the opening cylinder and is supplied to the fibre collecting surface only at the beginning of the actual piecing operation, wherein :

for supplying the yarn end into the spinning apparatus, the spinning vacuum in the rotor firstly comes into effect and the thread end is supplied into the spinning apparatus without touching the fibre collecting surface, and the spinning vacuum is then switched off and the vacuum outside the fibre transportation path is brought into effect and the fibre stream, after the feed apparatus has been switched on again, is guided away past the feed duct entrance opening and is sucked away until, at the beginning of the actual piecing operation, this vacuum is switched on so that the fibre stream is supplied to the fibre collecting surface and the thread end is returned to the fibre collecting surface.



Compl. specn. 68 pages.

Drgs. 7 sheets

Int. Cl.4 : H 01 B 3/30.

166493

A DIELECTRIC MATERIAL HAVING LOW DIELECTRIC CONSTANTS.

Applicant : W. L. GORE & ASSOCIATES, INC., A CORPORATION ORGANISED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, U.S.A., OF 555 PAPER MILL ROAD, P.O. BOX 9329, NEWARK, DELAWARE 19714, UNITED STATES OF AMERICA.

Inventor : DANIEL DAVID JOHNSON.

Application No. 878/Mas/85 filed November 1, 1985.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

18 Claims

A dielectric material comprising a fabric having fibres and interstices between said fibers, in which a portion of the fibers in said fabric is fluorocarbon fibers treated with a known uncured thermosetting resin to make the said fluorocarbon fibre wettable, the fabric being impregnated within said interstices between said fibers with a thermosetting resin cured to at least the semi-cured B-stage state, the dielectric constant of said dielectric material being less than 3.5 at 1 megahertz.

Compl. specn. 34 pages.

Drg. 1 sheet

Int. Cl.4 : C 01 D 7/00; C 01 F 1/00.

166494

METHOD FOR PREPARING A DRY, STABLE CARBONATING AGENT COMPLEX.

Applicant : SOCIETE DES PRODUITS NESTLE S. A., OF P.D. BOX 353, 1800 VEVEY, SWITZERLAND, A COMPANY INCORPORATED IN SWITZERLAND.

Inventors : (1) REBECCA SUI-CHUN SO. (2) ALBERT ANTON WILLI.

Application No. 927/Mas/85 filed November 19, 1985.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

8 Claims

A method for preparing a dry, stable carbonating agent complex comprising :

- admixing an alkali or alkaline earth metal hydroxide, oxide or mixture thereof with an aqueous carbohydrate solution at a temperature of less than 25°C in an amount such that the mole ratio of carbohydrate to said metal hydroxide is from 1 : 0.25 to 1 : 3.9 to form a carbohydrate/metal hydroxide adduct;
- adding carbon dioxide to the solution to react with the adduct until the pH is in the range of from 7 to 11 and form a carbohydrate/metal bicarbonate complex in the solution; and then
- isolating the carbonating agent complex from the solution by drying in the conventional manner.

Compl. specn. 32 pages.

No Drg.

Int. Cl.4 : B 65 H 54/02.

166495

DEVICE FOR REMOVING INDIVIDUAL TEXTILE BOBBIN TUBES FROM A CONTAINER.

Applicant : MASCHINENFABRIK RIETER AG., A BODY CORPORATE ORGANISED UNDER THE LAWS OF SWITZERLAND, OF WINTERTHUR, SWITZERLAND.

Inventor : ARTHUR WURMELI.

Application No. 928/Mas/85 filed November 19, 1985.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

8 Claims

Device for removal of individual textile bobbin tubes from a container of rectangular section, in which the tubes are loaded to engage the transverse sides of the container and one another, and the floor portion of the container comprising :

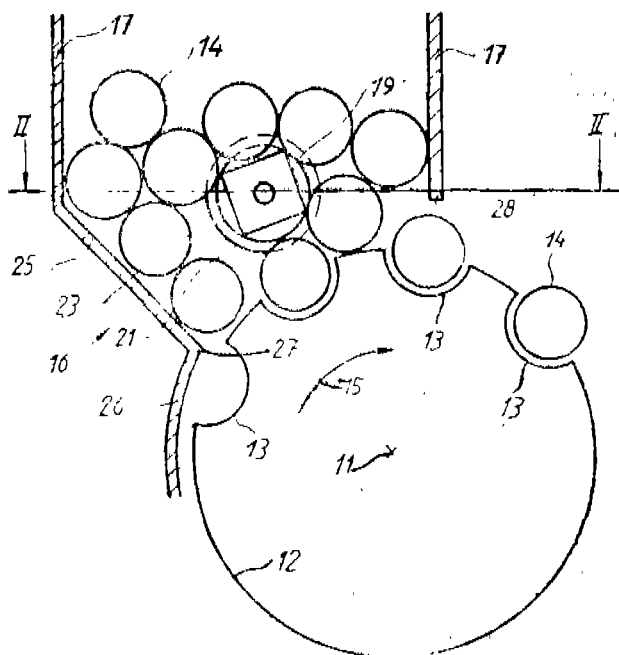
an exit opening for the bobbin tubes and at least one floor surface at right angles to the longitudinal sides of the container;

the floor surface extending from one of the transverse sides

at a downward inclination, to the opening and forming a concergence in the container characterised in that at least one operating rod (19) is provided which is arranged in the interior of the container (16) in the region above the opening horizontally and parallel to the transverse sides (17), of the container (16);

the rod being supported in the longitudinal sides (18) of the container with free play in all directions and freely rotatable, and in that the thickness of the rod (19) and the thickness of the tubes (14) are of the same order of magnitude;

a removal means for carrying away individual bobbin tubes passing through the opening,



Compl., specn. 11 pages.

Drgs. 2 sheets

Int. Cl.⁴ : B 01 D 53/14.

166496

PROCESS FOR PRODUCING A SUBSTANTIALLY H₂S-FREE GAS FROM A SOUR GASEOUS STREAM SUCH AS NATURALLY-OCCURRING GASES, SYNTHESIS GASES, PROCESS GASES AND FUEL GASES.

Applicant : SHELL INTERNATIONALE RESEARCH MAATSCHAPPIJ B. V., A NETHERLANDS COMPANY OF CAREL VAN BYLANDTLAAN 30, 296 HR THE HAGUE, THE NETHERLANDS.

Inventor : JOHN JOSEPH MILLER.

Application No. 975/Mas/85 filed December 3, 1985.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

6 Claims

Process for producing a substantially H₂S-free gas from a sour gaseous stream such as naturally-occurring gases, synthesis gases, process gases, and fuel gases comprising :

(a) containing in a contacting zone the sour gaseous stream with an aqueous reactant solution at a temperature below the melting point of sulphur, the reactant solution comprising between 2 and 15 mol of Fe (III) chelate of an organic acid per mol of H₂S at a pressure between 0.1 and 20 MPa, a temperature between 10 and 80° C and between 1 second and 120 seconds, producing a sweet gaseous stream, and solid sulphur and Fe (II) chelate of said acid is selected from the group consisting of nitrilotriacetic acid and organic acid having the formula II of the accompanying drawings, wherein

— from two to four of the groups Y are selected from acetic and propionic acid groups;

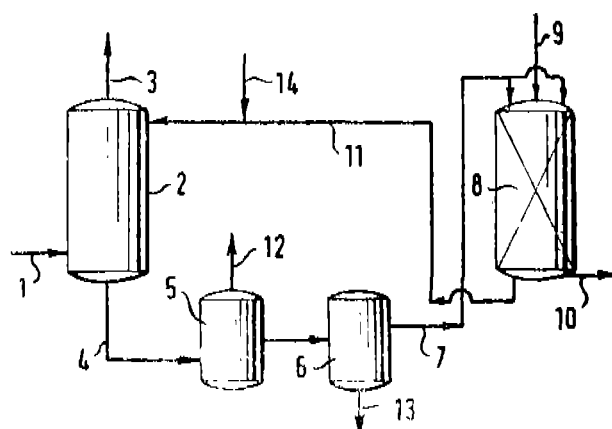
— from zero to two of the groups Y are selected from 2-hydroxyethyl, 2-hydroxypropyl, and the compound shown in formula I of the drawings, wherein X is selected from acetic acid propionic acid groups; and

— R is ethylene, propylene, isopropylene, cyclohexane or benzene where the two hydrogen atoms replaced by nitrogen are in the 1, 2 position and the organic acid comprises mixture thereof,

(b) removing sulphur from the aqueous mixture, producing an aqueous mixture having reduced sulphur content;

(c) inhibiting degradation of the degradable iron chelates in said aqueous mixture during regeneration and oxidizing the Fe (II) chelate of the organic acid in the aqueous mixture by passing the aqueous mixture with oxygen in plug flow or substantially plug flow through a regeneration zone to maintain a presence of said Fe (II) chelate throughout the mixture during at least the greater portion of the passage of the flow through the regeneration zone, and producing Fe (III) chelate of said acid in a regenerated aqueous reactant solution; and,

(d) passing regenerated aqueous reactant solution from step (c) to the contacting zone of step (a) for use as the reactant solution therein.



Compl. specn. 20 pages.

Drgs. 2 sheets

Int. Cl.⁴ H 01 J 1/02.

166497

FIELD-EMISSION SCANNING AUGER ELECTRON MICROSCOPE.

Applicant : INTERNATIONAL BUSINESS MACHINES CORPORATION, A COMPANY ORGANISED AND EXISTING UNDER THE LAWS OF THE STATE OF NEW YORK, U. S. A., OF ARMONK, NEW YORK 10504, U.S.A.

Inventors : (1) JOHANNES GEORGE BEDNORZ, (2) JAMES KAZIMIERZ GIMZEWSKI, (3) BRUNO REIHL.

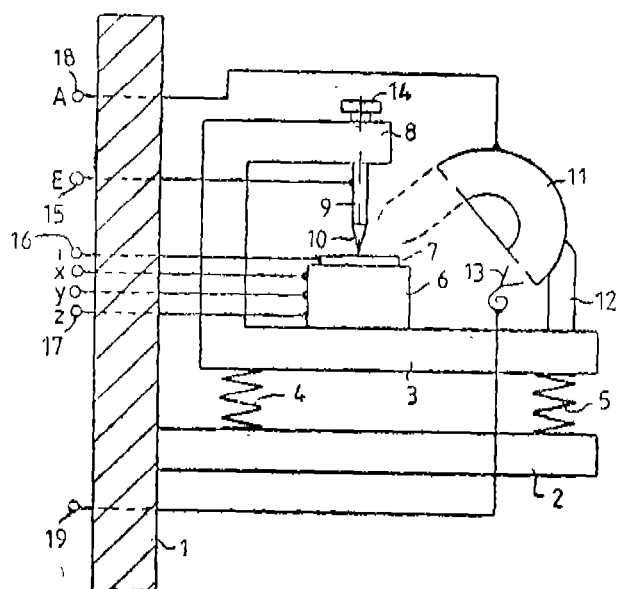
Application No. 992/Mas/85 filed December 9, 1985.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

6 Claims

Field-emission scanning auger electron microscope comprising :

- a field-emission source, a specimen support;
- scanning means for mutually displacing field-emission source and specimen;
- an electron detector with associated electronic data processing circuitry; and
- means for displaying and/or recording the results, characterised in that the field-emission source comprises a sharply pointed tip having a radius at the apex of the order of 100 nm, that said tip is maintained at an essentially constant distance of the order of 1 mm from the surface of said specimen, and that an electrical potential difference is maintained between said tip and said specimen.



Compl. specn. 17 pages.

Drg. 1 sheet

Int. Cl.4 : B 65 D 41/32.

166498

A CONTAINER AND A METHOD FOR MAKING THE SAME.

Applicant : METAL BOX PUBLIC LIMITED COMPANY, A BRITISH COMPANY, OF QUEENS HOUSE, FORBURY ROAD, READING, BERKSHIRE RG1 3JH, ENGLAND.

Inventors : (1) ROBERT JON ASHLEY, (2) JOHN DEREK MILLER.

Application No. 994/Mas/85 filed December 10, 1985.

Convention date : December 13, 1984; (No. 8431447; Great Britain).

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

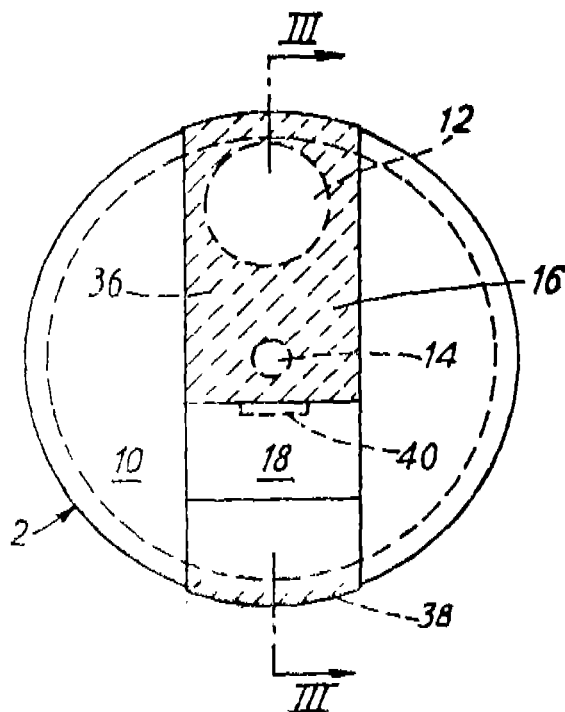
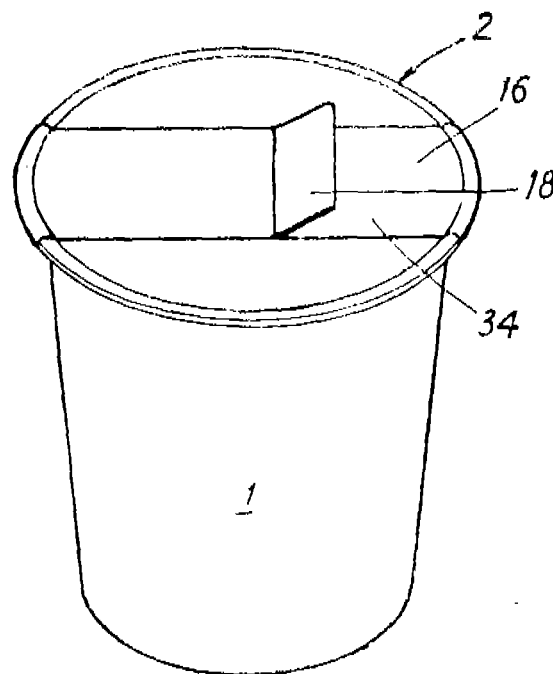
15 Claims

In a method of making a succession of closed food or beverage container, each container comprising :

- a vessel having a mouth surrounded by a rim having an upper surface made of plastics material;

12-67GI/90

the improvement comprises forming a continuous first web of diaphragm material with spaced apart perforations, successively folding portions of a second web made of peel strip material against itself to form spaced apart pull tabs, making a transverse cut across part of the width of the second web at the rearward junction of the pull tab and the remainder of the second web, the second web being secured peelably to the first web so that the folded pull tab is adjacent to the perforation, thus forming the composite web capable of being cut and welded to the rim of the container.



Compl. specn. 25 pages.

Drgs. 4 sheets

Int. Cl.⁴ : C 07 H 19/173.

166499

A METHOD OF PREPARING NUCLEOTIDE ANALOGS.

Applicant : TEKEDA CHEMICAL INDUSTRIES, LTD., OF 27, DOSHOMACHI 2-CHOME, HIGASHI-KU, OSAKA 541, JAPAN, A JAPANESE COMPANY.

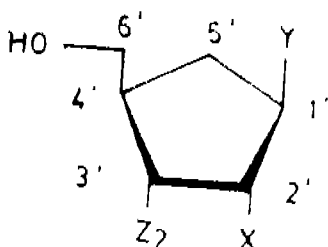
Inventors : 1) TSUNENIKO FUKUDA, (2) RYUJI MARUMOTO.

Application No. 68/Mas/88 filed February 2, 1988.

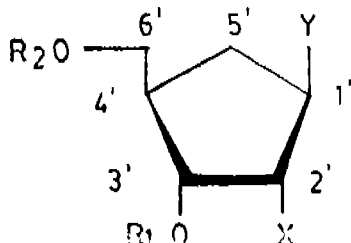
Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

1 Claim

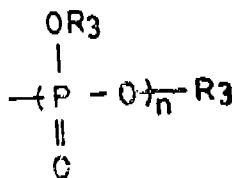
A method of preparing nucleotide analogs having formula (1), of the accompanying drawing;



wherein Y stands for a purine base residue or 5-amino-4-carbamoyl-imidazol-1-yl; X stands for hydrogen or an optionally protected hydroxyl group provided that, when Y is adenin-9-yl, X is hydrogen; R_1 is OH and R_2 stands for hydrogen or a group represented by the formula (A) of the accompanying drawing;



wherein n is an integer of 1 to 3 comprises, subjecting a compound represented by the formula (II) of the accompanying drawing;



wherein Y and X are of the same meaning as defined above, and Z_2 is a hydroxyl group, which may optionally be protected, to phosphorylation with a phosphorylating agent of 1.2 to 1.5 times the theoretical amount in number of moles at -40°C to 10°C and hydrolysis in ice water and, if necessary, removing protective group of Z_2 to obtain nucleotide analogs of the formula (I).

The compounds produced according to this invention are useful as antiviral agents and antifungal agents.

Compl. specn. 41 pages.

Drugs. 1 sheet

Int. Cl.⁴ : A 01 N 43/54; 57/00.

166500

A PROCESS FOR THE PREPARATION OF A STABILIZED AGRICULTURAL COMPOSITION.

Applicant : TAKEDA CHEMICAL INDUSTRIES, LTD., OF 27, DOSHOMACHI 2-CHOME, HIGASHI-KU, OSAKA 541, JAPAN, A JAPANESE COMPANY.

Inventors : (1) KANJI AKASHI; (2) TATSUO ASO-GAWA.

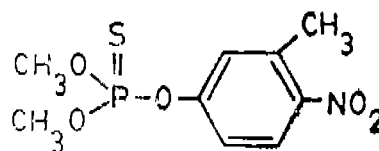
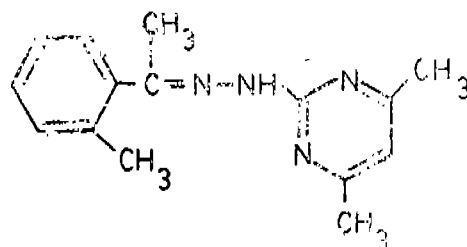
Application No. 140/Mas/88 filed March 4, 1988.

Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

7 Claims

A process for the preparation of a stabilized agricultural composition, comprises :

mixing (i) 4, 6-dimethyl -2[1-(0-tolyl)-1-ethylidenehydrazino] pyrimidine or a salt thereof in an amount of 10 to 90 parts by weight for preparing the composition in the form of an emulsifiable concentrate or wettable powder, 0.0001 to 50 parts by weight for preparing the said composition in the form of an oil preparation or dust and 0.1 to 50 parts by weight for preparing the composition in the form of granules, based on 100 parts by weight of the total composition, (ii) a pesticidal organophosphorus compound in an amount of 0.2 to 2 parts by weight relative to 1 part by weight of 4, 6-dimethyl-2 [1-(0-tolyl)-1-ethylidene-hydrazino] pyrimidine or a salt thereof, (iii) boron oxide and/or boron oxide complex in an amount of 0.1 to 20 parts by weight relative to 1 part by weight of 4, 6-dimethyl-2 [1-(0-tolyl)-1-ethylidene-hydrazino] pyrimidine or a salt thereof and (iv) a carrier selected from known carriers depending on the use of the said agricultural composition.



compl. specn. 24 pages.

Drugs. 1 sheet

Int. Cl.⁴ : F 04 B 49/00.

166501

AN APPARATUS FOR CONTROLLING AN INTERNAL COMBUSTION ENGINE.

Applicant : CATERPILLAR INC., OF 100 N. E. ADAMS STREET, PEORIA, ILLINOIS 61629-6490, U. S. A., A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF CALIFORNIA, U.S.A.

Inventor : RANDALL MILTON MITCHELL.

Application No. 790/Mas/85 filed October 8, 1985.

Convention date : April 23, 1985; (No. 479,820; Canada).

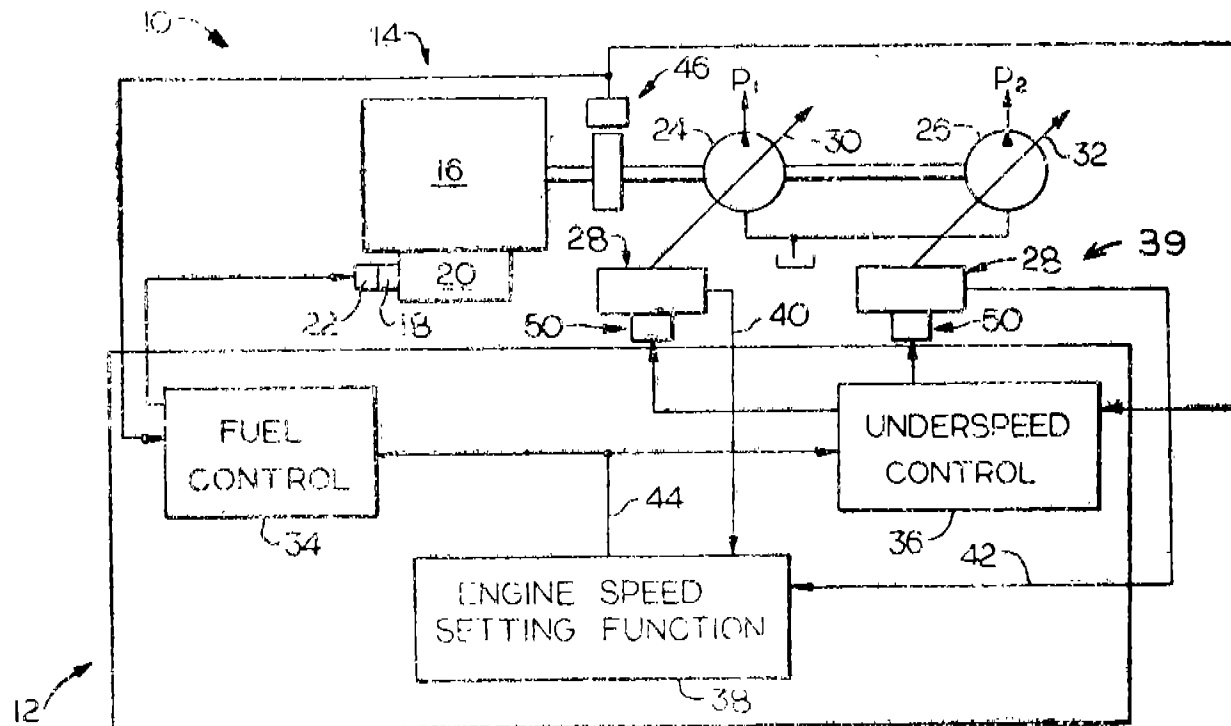
Appropriate Office for Opposition Proceedings (Rule 4, Patents Rules, 1972), Patent Office, Madras Branch.

4 Claims

An apparatus (10) for controlling an internal combustion engine (16) having a rack (18) for controlling a fuel injection pump, at least one variable displacement hydraulic pump (24), means (46) for delivering a signal responsive to actual engine speed, fuel control means (34) for receiving the actual engine speed signal and a desired engine speed signal (44) and delivering a rack signal responsive to the relationship between the actual and desired engine speed

signals, and rack actuator means (22) for receiving the rack signal and controlling the supply of fuel to the engine (16) responsive to the magnitude of the rack signal, the apparatus (20) being characterised by :

means (39) for delivering a signal (40, 42) responsive to the hydraulic flow demanded of the variable displacement hydraulic pump (24) by the load (56, 58) and electronic control means (38) receiving the signal responsive to the demanded hydraulic flow and setting the desired engine speed signal (44) to one of the plurality of preselected levels in response to the received signal responsive to the demanded hydraulic flow being within one of a plurality of corresponding ranges.



Compl. specn. 23 pages.

Drgs. 7 sheets

Int. Cl.⁴ : B 29 C 63/00.

166502

A METHOD OF PRODUCING A SUBSTRATE WITH PROTECTIVE COVERING.

Applicant : RAYCHEM CORPORATION, A COMPANY ORGANISED ACCORDING TO THE LAWS OF THE STATE OF CALIFORNIA, OF 300 CONSTITUTION DRIVE, MENLO PARK, CALIFORNIA 94025, U.S.A.

Inventors : (1) GEORGE PIESLAK, (2) TONY G. ALVERNAN, (3) ROBIN JOHN, (4) JAMES ARTHUR RINDE, (5) ERIC VAN ZEILE.

Application No. 900/Mas/85 filed November 8, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Madras Branch.

11 Claims. No drawing

A method of producing a substrate with a protective covering which comprises:

- (A) applying to the substrate a curable polymeric composition which is liquid at 20°C, is curable to a substantial extent within 24 hours at a temperature of not more than about 80°C, the said composition comprises a resin component, a curing agent and optionally, a Bronsted base in an amount sufficient to render the composition basic when it has been cured; a silane in an amount of 0 to 10% by weight, based on the weight of the composition; and a solvent in an amount of 0 to 20% by weight based on the weight of the composition;
- (B) applying one or more polymeric layers, the innermost layer of which being capable of interacting with said curable composition, in a manner such that said innermost layer is in intimate contact with said curable composition; and
- (C) allowing the curable composition to cure while maintaining said innermost layer in intimate contact with said curable composition;

with the proviso that in the absence of said Bronsted base, (a) the curable composition is cured at a temperature at which the outermost layer does not melt or flow and (b) if a single polymeric layer is applied over the curable composition, said polymeric layer is applied in the form of a shaped article.

Compl. specn. 24 pages.

Int. Cl. C 10 J 3/02

166503

A PROCESS FOR THE PRODUCTION OF SYNTHESIS GAS BY GASIFICATION OF COAL.

Applicant : M.A.N. MASCHINENFABRIK AUGSBURG-NÜRNBERG AKTIENGESELLSCHAFT A GERMAN COMPANY, OF BAHNHOFSTRASSE 66, 4200 OBERHAUSEN 11, FEDERAL REPUBLIC OF GERMANY.

Inventors : (1) PETER HEINRICH. (2) KLAUS KNOP AND (3) FRIEDBERT RUBE.

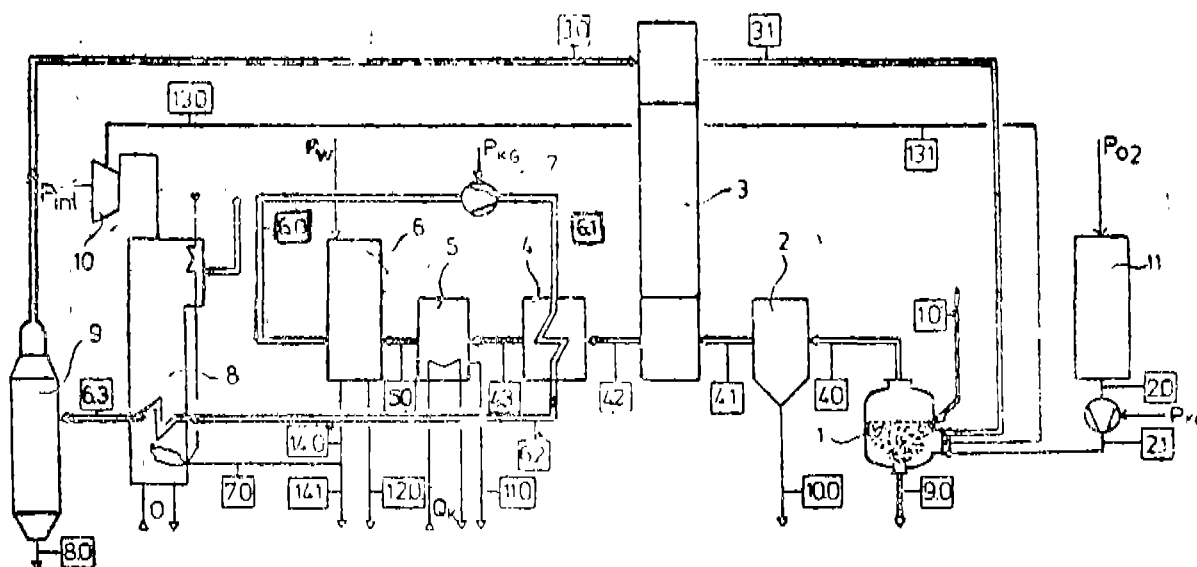
Application No. 942/Mas/85 dated 21st November, 1985.

Convention dated to 25th September, 1985, Australia No. 47865/85.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Madras Branch.

3 Claims

An improved process for the production of synthesis gas (syngas) comprising :



Compl. specn. 22 pages

Drg. 1 sheet

Int. Cl. H 01 F 27/10.

166504

AN IMPROVED METHOD FOR THE MANUFACTURE OF A TRANSFORMER.

Applicant : UNION CARBIDE CORPORATION, A CORPORATION ORGANISED AND EXISTING UNDER THE LAWS OF THE STATE OF NEW YORK, U.S.A., OF OLD RIDGEBURY ROAD, DANBURY, STATE OF CONNECTICUT (06817), UNITED STATES OF AMERICA.

Inventor : GILBERT RICHARD ATWOOD.

Application No. 951/Mas/85 filed November 26, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Madras Branch.

24 Claims

In a method for the manufacture of a transformer having a vessel containing a coolant having PCB, an electrical winding and porous solid celulosic electrical insulation immersed in said PCB-containing coolant with a substantially

PCB-free high boiling dielectric permanent coolant into which any residual PCBs elute at a selected target rate, said solid porous electrical insulation initially being impregnated with said PCB-containing coolant, wherein the improvement comprising the steps of :

- removing the major portion of said coolant contained in the vessel;
- filling said vessel with an interim di-electric cooling liquid miscible with the PCB containing coolant and is substantially free of PCB, and is sufficiently low in viscosity to circulate within said vessel and penetrate the interstices of said porous solid electrical insulation, and is capable of being readily separated from PCB;
- eluting the PCB contained in said coolant impregnated in said porous solid insulation therefrom into said interim dielectric cooling liquid in a known manner;
- thereafter removing said interim dielectric cooling liquid containing said eluted PCB from said vessel;

- (e) repeating the cycle of steps (b), (c) and (d), if the rate of elution of PCB into said interim dielectric cooling liquid exceeds 5 times of the said selected target rate;
- (f) filling said vessel with a substantially PCB-free dielectric silicone oil as cooling liquid;
- (g) eluting interim dielectric cooling liquid and additional PCB impregnated in said porous solid insulation therefrom into said dielectric silicone oil in a known manner;
- (h) thereafter removing said dielectric silicone oil containing said eluted PCB from said vessel;
- (i) repeating the cycle of steps (f), (g) and (h) if the rate of elution of PCB into said dielectric silicone oil exceeds said selected target rate of elution; and
- (j) refilling said vessel with a substantially PCB-free permanent dielectric cooling liquid to reduce the amount of PCB's in the transformer.

Compl. specn. 59 pages

Drg. 3 sheets

Int. Cl.⁴ : H01J 61/02; 9/00.

166505

METAL VAPOR DISCHARGE LAMP AND METHOD OF PRODUCING THE SAME.

Applicant : IWASAKI ELECTRIC CO., LTD., OF NO. 12-4, SHIBA 3-CHOME, MINATO-KU, TOKYO, JAPAN, JAPANESE COMPANY.

Inventors : (1) MOTONOBU MASUI, (2) YASUO BAN.

Application No. 961/Mas/85 filed November 28, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Madras Branch.

12 Claims

A metal vapor discharge lamp having a luminous tube constituted by a translucent ceramic tube member, end caps hermetically fixed to both ends of said translucent ceramic tube member, and electrode supporting tubes hermetically inserted into respective end caps such as to partly project outwardly from said translucent ceramic tube, one of said electrode supporting tubes being an exhaust electrode supporting tube which serves also as an exhaust tube for evacuation and also as a reservoir for a metal charged in said luminous tube, the outer end extremity of said one of said electrode supporting tubes constituting the coldest portion of said metal vapor discharge lamp during the operation of said tube, the outer end of at least said one of said electrode supporting tubes being hermetically sealed through fusion by application of heat.



Compl. specn. 29 pages

Drg. 3 sheets

Int. Cl.⁴ : C 25 B 9/00; 11/00

166506

A MONOPOLAR ELECTROCHEMICAL CELL.

Applicant : THE DOW CHEMICAL COMPANY, A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, U.S.A., OF 2030 DOW CENTER, ABBOTT ROAD, MIDLAND, MICHIGAN 48640, U.S.A. and

ORONZIO DE NORE IMPIANTI ELETTRICHI S.p.A., OF CIA BISTOLFI, 35, 20134 MILANO, ITALY; OF ITALIAN NATIONALITY.

Inventors : (1) RICHARD NEAL BEAVER, (2) GREGORY JEAN ELTON MORRIS, (3) GIUSEPPE NOLI.

Application No. 984/Mas/85 filed December 4, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Madras Branch.

14 Claims

A monopolar cell of the type having two end cell units and at least one intermediate cell unit positioned between said end units, said cell units being separated by a separator selected from a substantially hydraulically impermeable ion exchange membrane and a hydraulically permeable diaphragm, said intermediate cell unit comprising :

two substantially parallel, substantially planar electrode components spaced from each other;

a substantially rigid, electric current transmission element disposed in the space between said electrode components;

said transmission element having a pair of opposed generally planar surfaces and a plurality of bosses distributed over both of said surfaces and projecting a predetermined distance outwardly from the transmission element into electrolyte chambers adjacent to the transmission element, at least a portion of said bosses being mechanically and electrically connected either directly or indirectly to the electrode components, and at least one electrical connecting member attached to the transmission element for conducting electrical current into or out of said transmission element to distribute electrical energy to each of said electrode components.

Compl. specn. 45 pages

Drg. 3 sheets

Int. Cl.⁴ : D01 G 7/14

166507

A DEVICE FOR CONTROLLING A MACHINE FOR EXTRACTING FIBRE FLOCKS FROM TEXTILE FIBRE BALES.

Applicant : MASCHINENFABRIK RIETER AG, A BODY CORPORATE ORGANISED UNDER THE LAWS OF SWITZERLAND, OF CH-8406, WINTERTHUR, SWITZERLAND.

Inventors : (1) ROLF BINDER, (2) DANIEL HANSELMANN, (3) CHRISTOPH STAHELI.

Application No. 995/Mas/85 filed December 10, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Madras Branch.

2 Claims

A device :

for controlling a machine for extracting fibre flocks from textile fibre bales with reciprocating means for raising and lowering;

the said reciprocating means being adapted for travel back and forth along the bales, an extracting member provided on the reciprocating means with at least one rotating extracting roller which transfers the fibre flocks extracted from the fibre bales to a flock transport means cooperating with the extracting member;

the penetration depth of the extracting member being adjustable in depending upon the bale height, wherein the said reciprocating means is provided with a pulse generator for continual issue of signals during up and down movements of the extracting member, respective switch elements are provided for producing respective

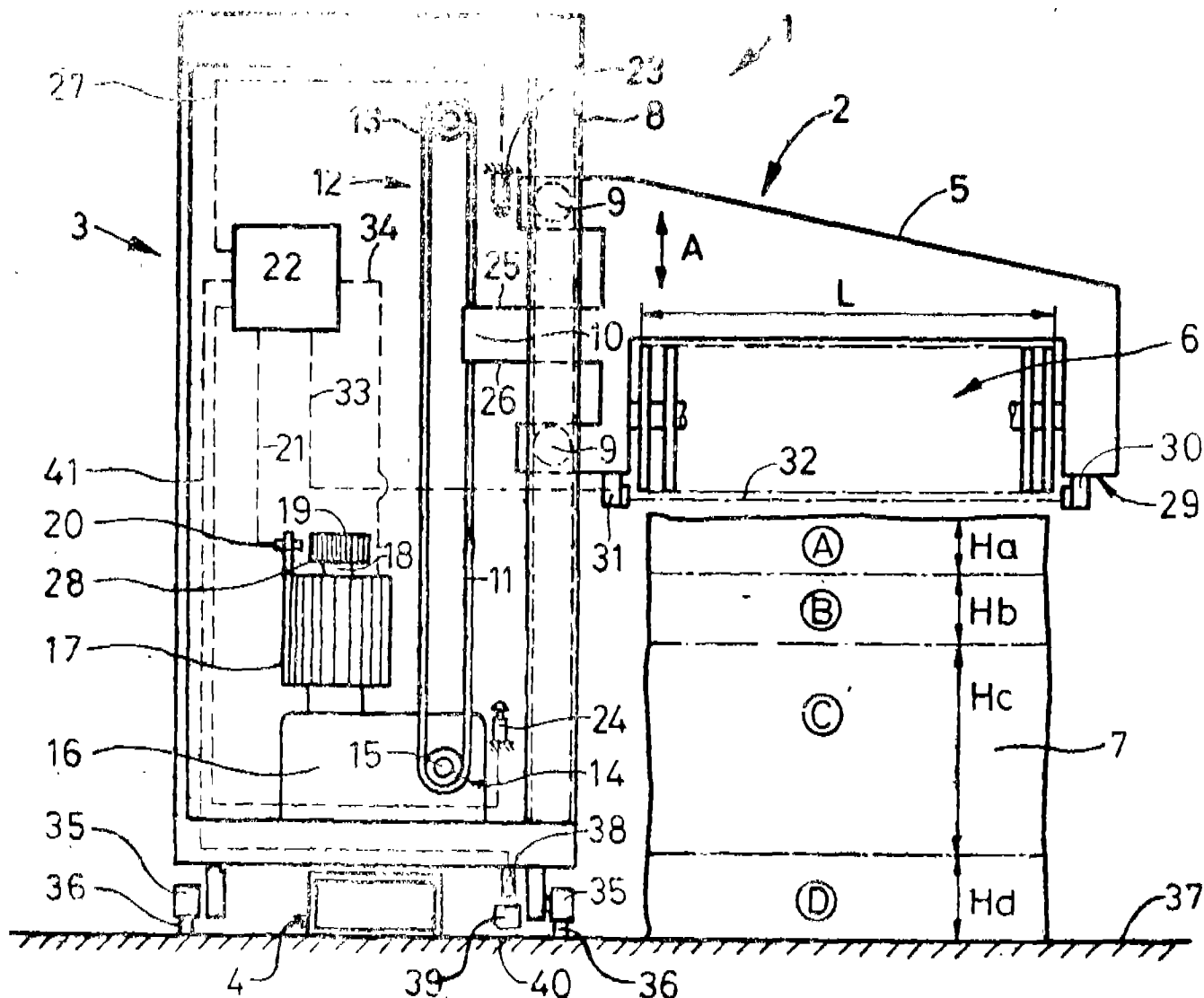
signals when the upper and lower end positions respectively of the extracting member are reached;

a sensor element is mounted on the extracting member for producing a further signal when the bale surface is reached during descent, and a micro-computing in response to the said signals produced computer for computing in response to the said signals

produced and the predetermined data such as penetration depth and number of passes;

the reduction in the penetration depth in the upper region;

the increase in the penetration depth in the lower region, the required penetration depth for the desired extraction power in the middle region, the heights of the individual regions and controls the movements of the extracting member depending upon the bale height.



Compl. specn. 14 pages

Drg. 1 sheet

Int. CLASS⁴ : H 01 T 4/00

166508

11 Claims

PROCESS FOR THE PRODUCTION OF A LIGHTENING ARRESTER USING AN ACTIVE RESISTOR CORE MADE OF A VOLTAGE-DEPENDENT RESISTANCE MATERIAL BASED ON ZnO AND LIGHTENING ARRESTER PRODUCED THEREBY.

Applicant : BBC BROWN, BOVERI LIMITED, OF CH-5401 BADEN, SWITZERLAND. A SWISS COMPANY.

Inventors : (1) GUNTHER MAIER. (2) JOSEPH MOSELE, (3) ROGER PERKINS.

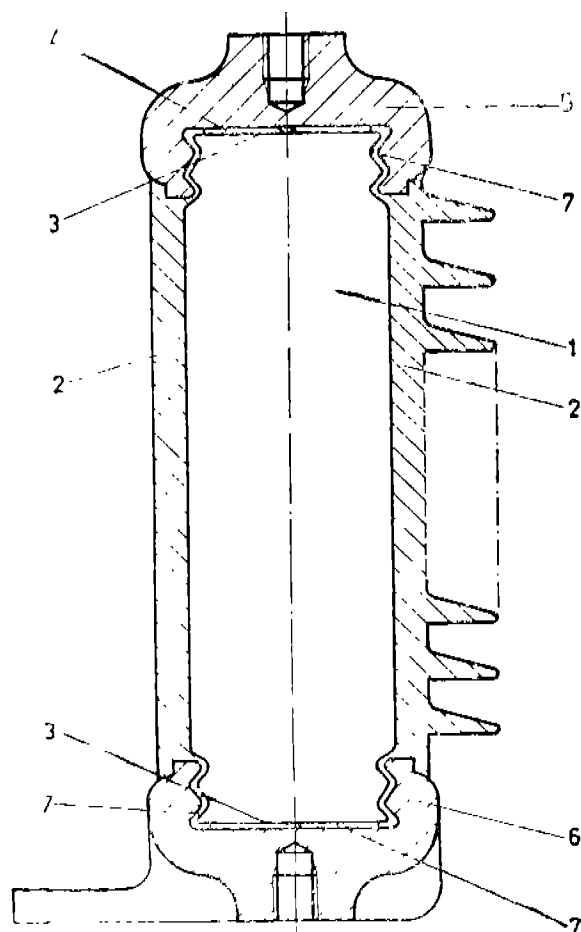
Application No. 1011/Mas/85 filed December 17, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Madras Branch.

Process for the production of a lightning arrester using an active resistor core (1) made of a voltage-dependent resistance material based on ZnO, mixing 90 to 99 mole % of ZnO powder with additional metal oxide powders such as Bi_2O_3 , Sb_2O_3 , Co_2O_3 , MnO_2 and Cr_2O_3 , molding the powder mixture and sintering the molded powder mixture at a temperature between 1100 and 1400°C, the sintered compact being machined, contacted and assembled with the remaining components such as insulator, terminal fittings and powder supply lines;

wherein the powder mixture containing ZnO powder and other metal oxide powders is converted into pourable granules and the latter are filled into a highly flexible hollow mould, as similar as possible to the final shape of

the resistor core (1), and cold-pressed isostatically or radially into a single monolithic compact moulding, corresponding to the final shape of the resistor core, with at least 40% of the theoretical density, and this precompact moulding is dense sintered in a following sintering process to a density of at least 90% of the theoretical value into a signal monolithic resistor core (1) of any desired final dimensions and making electrical contacts at both ends of the sintered resistor core (1) in a known manner and provided with an insulator (2) in the form of a jacket by sheathing or coating.



Compl. specn. 14 pges

Drg. 4 sheets

Int. CLASS⁴ : B 28 B 3/02

166509

A PROCESS FOR MAKING CEMENT BODIES BY ACCELERATED HARDENING OF CEMENT IN A COMPOSITION CONTAINING WATER, CEMENT AND FIBROUS MATERIAL.

Applicant : NYUGATMAGYARORSZAGI FAGAZDASAGI KOMBINAT, OF SZOMBATHELY ZANATI UT 26, H-9700, HUNGARY, A HUNGARIAN COMPANY.

Inventor : ERNO SCHMIDT.

Application No. 1030/Mas/85 filed December 26, 1985.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Madras Branch.

6 Claims

A process for making cement bodies by accelerated hardening of cement in a composition containing water, cement and fibrous material, comprising:

- (A) forming said composition into a predetermined shape having an outer portion extending to the outer periphery of said predetermined shape and an inner portion confining to said outer portion;
- (B) positioning said predetermined shape of said composition between the pressure plates of a press;
- (C) utilizing said pressure plates to compress said inner portion of the formed shape of said composition to a first predetermined density;
- (D) utilizing said pressure plates to compress said outer portion of the formed shape of said composition to a second predetermined density, said second predetermined density being greater than said first predetermined density and sufficient to avoid gas leak through the said outer portion;
- (E) applying CO₂ to said inner portion of the formed shape of said composition, whereby said CO₂ is confined to be within said inner portion by said pressure plates and said outer portion.

Compl. specn. 12 pages

Drg. 2 sheets

Int. CLASS⁴ : B 03 C 3/66

166510

TRIGGERING CIRCUIT FOR THYRISTOR PROTECTION IN AN ELECTRICAL PULSE GENERATOR.

Applicant : F.L. SMIDTH & CO. A/S., OF 77, VIGERSLEV ALLE, DK-2500 VALBY, COPENHAGEN, DENMARK, A DENMARK COMPANY.

Inventor : CLAUD EBBE TAARNING.

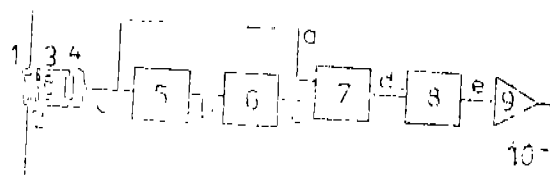
Application No. 522/Mas/86 filed July 8, 1986.

Appropriate office for opposition proceedings (Rule 4, Patents Rules, 1972) Patent Office, Madras Branch.

2 Claims

Triggering circuit for protecting the thyristors of a switch element in a pulse generator for a pulse energized electrostatic precipitator, characterised in, that the circuit comprises:

- a high frequency current transformer (2), the primary winding (1) of which is series-coupled with the pulse circuit of a pulse generator, and across the secondary winding (3) of which is coupled a parallel resistance (4) across which the current representing voltage signal is given off;
- a peak value measuring unit (5), in which the current representing voltage peak value is measured, a voltage divider (6) and a voltage comparator (7), in which the current representing voltage is compared with the peak value reported, and the output signal of which is an indication that the reported peak value exceeds the current representing voltage, a timer circuit (8), which is activated by the voltage comparator (7) output signal and an amplifier (9) which transmits a trigger current to the connected cable ignition system (10).



Compl. specn. 12 pages

Drg. 3 sheets

CLASS 32 E & 152 E.

166511

Int. Cl. : C 08 g 30/00.

"A PROCESS FOR PREPARATION OF HIGH STRENGTH RESIN COMPOSITES".

Applicant : UNION CARBIDE CORPORATION, MANUFACTURERS, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF NEW YORK, U. S. A., LOCATED AT OLD RIDGEBURY ROAD, DANBURY, STATE OF CONNECTICUT 06817, UNITED STATES OF AMERICA.

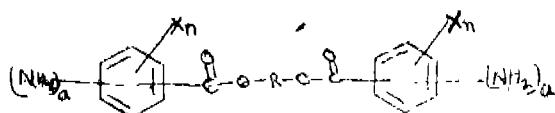
Inventor : SHAHID QURESHI.

Application for patent No. 75/Del/84 filed on 25th January, 1984.

Appropriate office for opposition proceedings (Rules 4, Patents Rules, 1972) Patent Office Branch, New Delhi-5.

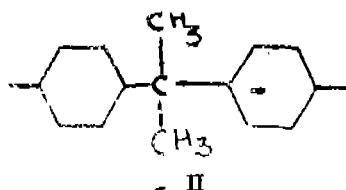
24 Claims

A process for the preparation of high strength resin composites which comprises mixing an epoxy resin containing two or more 1, 2-epoxide groups per molecule of the kind described herein with a diamine hardener having the general Formula I.



Formula I

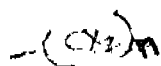
wherein R is selected from any one of the groups of the Formula II to IX



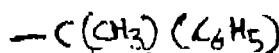
II



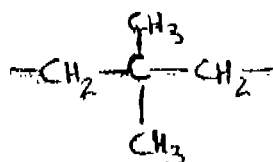
III



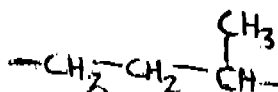
IV



V



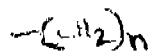
VI



VII



VIII



IX

in which n is an interger from 1 to 10, R₁ is -C(CH₃)₂-, -SO₂-, -O-, -S- or a direct bond, X is hydrogen, an alkyl of from 1 to 4 carbon atoms or halogen and a is 1 to 2 and subjecting the mixture to cure at a temperature of from 100°F to 500°F.

Compl. specn. 32 pages.

Drgs. 5 sheets

Ind. Cl. : [32 E; 32 F3(b)].

166512

Int. Cl. : C10M 129/68.

"A LIQUID HYDROCARBON COMPOSITION FOR USE AS FUEL CRUDE OILS AND LUBRICANTS".

Applicant : THE LUBRIZOL CORPORATION, A CORPORATION OF THE STATE OF OHIO OF 29400 LAKE-LAND BOULEVARD, WICKLIFFE, OHIO 44092 UNITED STATES OF AMERICA.

Inventors : FREDERICK WILLIAM KOCH, JEFFEREY KEITH LONG.

Application for Patent No. 38/Del/86 filed on 15th January, 1986.

Appropriate office for opposition proceedings (Rules 4, Patents Rules, 1972) Patent Office Branch, New Delhi-5.

12 Claims

A liquid hydrocarbon composition for use as fuels, crude oils or lubricants comprising :

from 0.01% to 20% based on the total weight of said composition, an ester if a carboxy-containing interpolymer, said interpolymer having an RSV of from 0.05 to 2, the ester group of said interpolymer being (A) a carboxylic ester group having at least 8 aliphatic carbon atoms in the ester group (A) contains less than 28 carbon atoms, the interpolymer ester includes an ester (B) wherein solid ester (B) is a carboxylic ester group having an ester group of the formula R' RO (CHCH₂O) (CH₂CH₂O)

wherein R is a hydrocarbonyl groups containing 1 to about 50 carbon atoms, R is a hydrocarbonyl group containing 1 to about 50 carbon atoms Y is a number in the range of zero to 50 with the proviso that both Y and Z cannot be zero, wherein when (B) is present the molar ratio of (A) : (B) is in the range of 100 : 1 to 1 : 2; and the balance amount of a liquid hydrocarbon of the kind such as herein described.

Compl. specn. 54 pages.

Drg. 1 sheet

Ind. Cl. : 32F3 (a), 32F1

166513

Int. Cl. : C07D 311/00.

"PROCESS FOR PREPARING 4-HYDROXYCOUMARIN DERIVATIVES".

Applicant

SHELL INTERNATIONALE, RESEARCH MAATSCHAPPIJ B. V. of Caral Van Bylandtlaan 30, 2596 HR the Hague, the Netherlands, a Netherlands company.

Inventor (s)

IAN DAVID ENTWISTLE & PETER BOEHM.

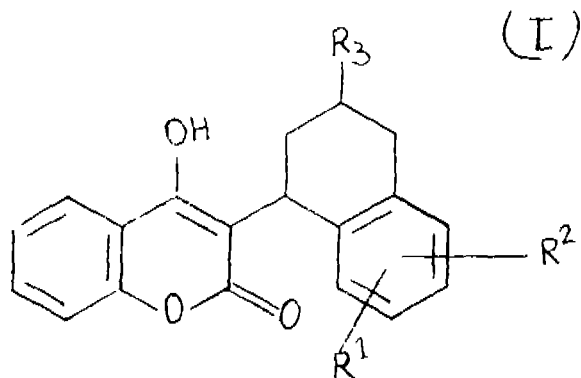
Application for patent No. 776/DEL/85 filed on 24th Sept. 1985.

Convention date September 25, 1984/8424317/(U.K.)

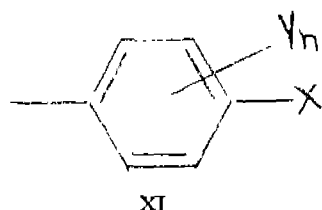
Appropriate office for opposition proceedings (Rule 4, 1972), Patent office Branch, New Delhi-5.

(Claims-13)

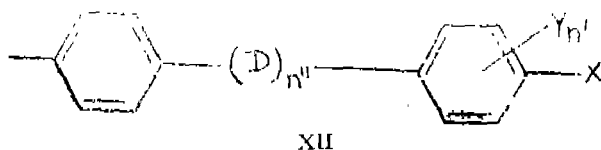
A process for preparing a 4-hydroxycoumarin derivatives of Formula I



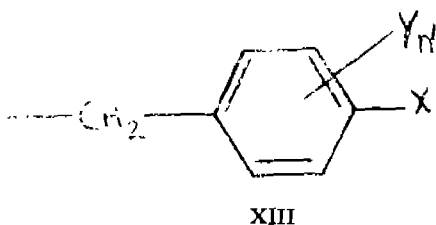
of the accompanying drawing wherein R^1 and R^2 are independently selected from the group consisting of hydrogen, halogen, alkyl of up to 6 carbon atoms and alkoxy of up to 6 carbon atoms, and R^3 is selected from : (a) a group of Formula XI



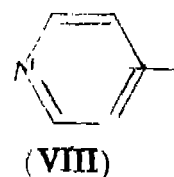
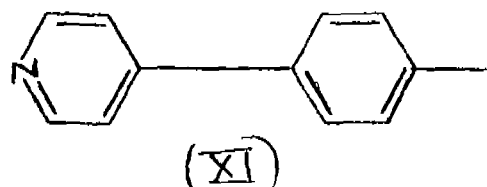
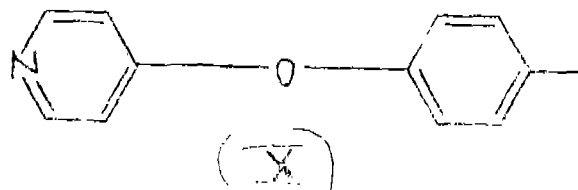
where X represents a halogen atom or a group C_{1-12} alkyl, C_{1-12} alkoxy, C_{3-8} cycloalkyl, CN, SO_2 , R^5 , CF_3 , OCF_3 , $COOR^5$ or COR^5 where R^5 is C_{1-6} alkyl, n' is 0, 1 or 2 and Y is a fluorine or Chlorine atom; (b) a group of Formula XII



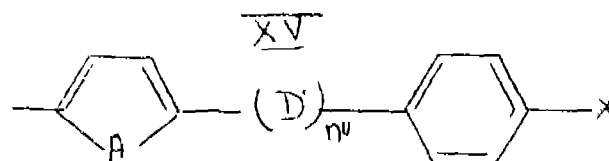
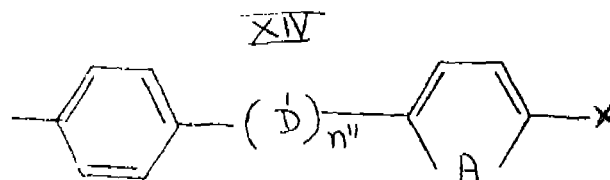
n' and y are as defined above, X is as defined above or is hydrogen, n'' is 0 or 1 and D is an oxygen atom, or a group -O-, $-(CH_2)m-$, $-(CH_2)m-O-$, $-O-(CH_2)m-O-$, $-(CH_2)m-O-$, $-(CH_2)p-$, $-(CH_2)m-$ or $-CH-CH-$, or a sulphur analogue thereof, wherein m is in the range 1 to 6 and p is in the range of 1 to 6; (c) a group of formula XIII where X, n' and y are as defined in (a) above



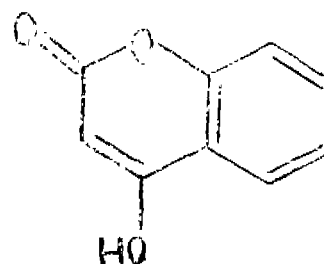
(D) a group selected from compounds of the Formulae VIII, IX and X; and



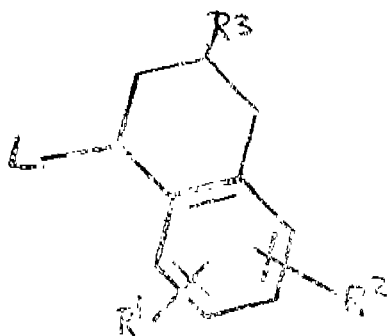
(e) a group selected from compounds of the Formula XIV and XV



Where X and n'' are as defined in (b) above, A is an oxygen or Sulphur atom and D' is an oxygen atom or a $-CH_2-$ group, which process comprises condensing 4-hydroxycoumarin of Formula II



WITH A COMPOUND OF formula VI



wherein R₁, R₂ and R₃ and as defined above, and L is a hydroxy group or a halogen atom, in the presence of a catalyst such as herein defined and an organic solvent selected from formic acid, a mixture of formic acid and at least one C₂₋₆ aliphatic acid having a boiling temperature at atmospheric pressure in the range of 600 to 1050 °C and a liquid halogenated hydrocarbon such as herein defined having a boiling temperature of at least 600 °C, at a temperature in the range 600 °C to the reflux temperature of the reaction mixture.

(Complete Specification—14 pages)

Drawing—3 sheets)

Ind. Cl. : 32 F², (a), 32F₁.

166514

Int. Cl.³ : C 07 C 127/00.

"PROCESS FOR PREPARING A TRISUBSTITUTED N-PHENYL UREA".

Applicant : RHONE-POULENC AGROCHIMIE, OF 14-20, RUE PIERRE BAIZET, 69009 LYON, FRANCE, FRENCH BADI CORPORATE.

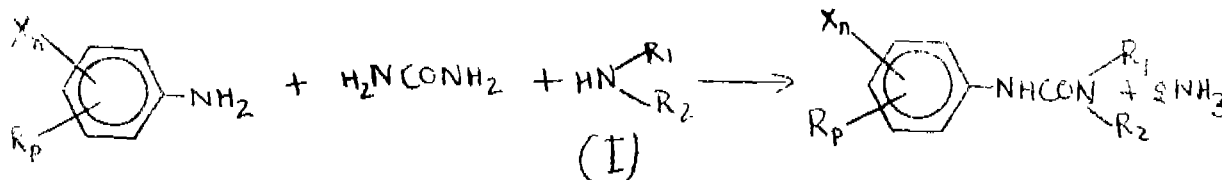
Inventor : JEAN CLAUDE PARRON.

Application for Patent No. 79/Del/86 filed on 28th January, 1986.

Appropriate office for opposition proceedings (Rules 4, Patents Rules, 1972) Patent Office Branch, New Delhi-5.

10 Claims

A process for preparing a trisubstitute N-phenyl-urea wherein, the corresponding aniline, urea in a molar ratio of from 1.1 to 2 with respect to the aniline, and corresponding secondary amino are reacted simultaneously in a non-hydroxyl-containing solvent medium of the kind as herein described at a temperature of between 130 and 250°C, with removal of ammonia as it forms, according to the scheme 1 of the accompanying drawings in which :



X is a halogen atom at a position 3 and/or 4
n is integer equal to 0, 1 or 2,

R is an alkyl group having 1 to 4 carbon atoms,

optionally halogenated alkoxy group having 1 to 4 carbon atoms at position 3 or 4 on the benzene ring,

P is an integer equal to 0 or 1, with the further provision that n+p is equal to 2 at most,

R₁ and R₂, which may be identical or different, are each an alkyl radical having 1 to 4 carbon atoms or alternatively one is an alkyl radical having 1 to 4 carbon atoms and the other is an alkoxy radical having 1 to 4 carbon atoms.

Compl. specn. 12 pages.

Drg. 1 sheet

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

6 Claims

An elastomeric composition for manufacturing articles such as roof membranes, roof flashing or liners said composition comprises :

- asphalt having a softening point 45° to 110°C;
- preferential plasticizer as herein described ; and
- neutralized sulfonated polymer as herein described in a weight ratio of neutralized sulfonated polymer to asphalt of from 30/70 to 95/5 and the preferential plasticizer is present from 8 to 20 parts based on 100 parts of the polymer.

Compl. specn. 21 pages.

Ind. CLASS : 152B XII(2)

166515

Int. Cl.⁴ : E04D 13/00.

AN ELASTOMERIC COMPOSITION FOR MANUFACTURING ARTICLES SUCH AS ROOF MEMBRANES, ROOF FLASHING OR LINERS.

Applicant : UNIROYAL CHEMICAL COMPANY INC., A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF NEW JERSEY, ONE OF THE UNITED STATES OF AMERICA, LOCATED AT WORLD HEADQUARTERS, MIDDLEBURY, CONNECTICUT 06749 (U.S.A.).

Inventor : EBON PAUL WEAVER.

Application for Patent No. 210/Del/86 filed on 7th March, 1986.

Ind. CLASS : 62-D

166516

Int. Cl.⁴ : C 11 D 1/00 3/32 .

"A DETERGENT COMPOSITION".

Applicant : COLGATE-PALMOLIVE COMPANY 300 PARK AVENUE NEW YORK, NEW YORK 10022, U.S.A., A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF DELAWARE, U.S.A.

Inventor(s) : ROBERT JOHN STELTENKAMP, MICHAEL ARMAND CAMARA.

Application for Patent No. 431/Del/86 filed on 14 May, 1986.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972), Patent Office Branch, New Delhi-110005.

14 Claims

A detergent composition comprising :

5 to 35% by wt. of a synthetic organic detergent of the kind such as herein described, 10% to 85% by wt. of builders of the kind such as herein described for such synthetic organic detergent and 0.5 to 20% by wt. of polyamide(s) of trialkylacetic acid(s) and polyamine(s), useful as antistatic agent(s) for filamentary and fibrous materials, wherein each of the alkyls of each of the trialkylacetic acid moiety/moieties is/are of 1 to 10 carbon atoms and the polyamine moiety/moieties contains from 2 to 5 amino groups.

Complete specn. 44 pages

Drgs. 4 sheets

Ind. CLASS : 39C

166517

Int. Cl. : C01C 1/18.

PROCESS OF PRODUCING CONCENTRATED SOLUTIONS OF AMMONIUM NITRATE.

Applicant : SOCIETE CHEMIQUE DES CHARBONNAGES S.A., TOUR AURORE, PLACE DES REFLETS, F-92080 PARIS LA DEFENSE, CEDEX 3, FRANCE, A FRENCH COMPANY.

Inventor(s) : VILLARD ALEXANDRE & CATONEA YVES.

Application for Patent No. 552/Del/86 filed on 25th June, 1986.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

2 Claims

Process for producing concentrated solutions of ammonium nitrate which comprises passing nitric acid and ammonia in a pipe reactor for neutralizing the reactants into ammonium nitrate, where by the global flow of nitric acid and ammonia corresponds to an output of ammonium nitrate less than 150 kg/h/cm² in the presence of recycles flow of ammonium nitrate being in the recycling ratio between 1 and 5.

Compl. specn. 6 pages

Drg. 1 sheet

Ind. CLASS : 189 LXVI (9)

166518

Int. Cl. : A61K 6/00.

A DENTAL CREAM.

Applicant : COLGATE-PALMOLIVE COMPANY, A DELAWARE CORPORATION, OF 300 PARK AVENUE NEW YORK, NEW YORK-10022, UNITED STATES OF AMERICA.

Inventor(s) : ROBERT LEE MITCHELL, MICHAEL ALEXANDER KIERNAN, SANDRA LEE SCHELM.

Application for Patent No. 737/Del/86 filed on 14 August, 1986.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

12 Claims

A dental cream comprising :

at least 20% by weight of a liquid vehicle comprising water, glycerine, sorbitol and polyethylene glycol of average molecular weight of 200-1000, the weight ratio of glycerine to sorbitol being from 0.25 : 1 to 3 : 1 and the weight ratio of the total amount of glycerine and sorbitol to said polyethylene glycol being from 60 : 1 to 6 : 1, the

amount of said polyethylene glycol being from .5% to 5% by weight, and a solid vehicle comprising 0.05-10% by weight of gelling agent as herein described, 20-75% by weight of a dentally acceptable water-insoluble polishing agent as herein described.

Complete specn. 20 pages.

Ind. CLASS : 108B₂(b) & 85(R)

166519

Int. Cl. : C21B 13/02.

A SHAFT FURNACE FOR PRODUCING METALS.

Applicant : SETEPLA TECNOMETAL ENGENHARIA S.A., A BRAZILIAN CORPORATION, OF RUA LUIZ GOES, NO. 1626, CITY OF SAO PAULO, STATE OF SAO PAULO, BRAZIL AND INDUSTRIA DE FUNDICAO TUPY S.A., A BRAZILIAN CORPORATION OF RUA ALBANO SCHMIDT, NO. 3400, CITY OF JOINVILLE, STATE OF SANTA CATARINA, BRAZIL.

Inventor(s) : MARCOS DE ALBUQUERQUE CONTRUCCI, HERBERT SCHWARZ HENRIQUE PEROTTA RIZZO, PEDRO HENRIQUE CARPINETTI COSTA ENRIQUE LOPEZ GONZALEZ, PEDRO VENTRELLA DURAN, NORBERTO JACOMINI & ADALBERTO BIERRENBACH DE SOUZA SANTOS.

Application for Patent No. 986/Del/86 filed on 10th November, 1986.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

8 Claims

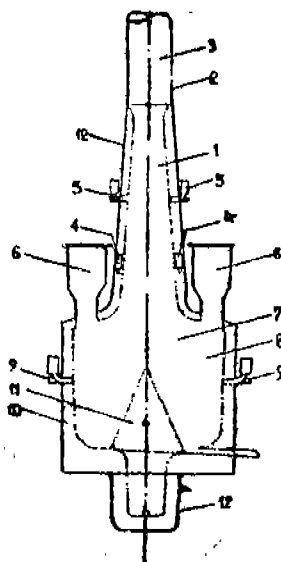
A shaft furnace for producing metals comprising :

a cylindrical or conical shaft (1) having at the top portion thereof a loading gate (2) and an outlet for gases through a chimney (3) leading the same to heat regenerators and also having one or more rows of tuyeres (4, 5) for blowing preheated or non-preheated and/or O₂-enriched or not enriched air;

for burning of the reducing or combustible gases flowing upwardly counter-currently so as to directly transfer its thermal energy to the descending load, and cylindrical or conical hearth (8) with circular or any other cross-sectional shape having a diameter greater than that of shaft (1) by an amount sufficient for positioning fuel feeders (6) directly over a fuel bed (7);

On the lower portion of the furnace is provided with one or more rows of tuyeres (9) distributed so as to blow preheated or non-preheated O₂-enriched or not enriched air and for injecting or not liquid, gaseous, or solid fuels sprayed beneath the feeder (6) and further including pouring spout(s) for discharge or molten metal and slag; and

wherein both the shaft and the hearth are lined with a refractory layer (10).



Compl. specn. 12 pages

Drq. 1 sheet

Ind. CLASS : 40 F, 182 D

166320

Int. CL⁴ : B01D 4300, C13D 3/00.

PROCESS FOR FLOCCULATING AND CLARIFYING A SOLID-LIQUID SLURRY.

Applicant : FABCON INCORPORATED, A CORPORATION ORGANISED UNDER THE LAWS OF THE STATE OF OHIO, UNITED STATES OF AMERICA, OF 965 MISSION STREET, SUITE 730, SAN FRANCISCO, CALIFORNIA 94103, UNITED STATES OF AMERICA.

Inventor(s) : JOHN ANTHONY CASEY.

Application for Patent No. 173/Del/87 filed on 26th February, 1987.

Divisional to application No. 768/Del/84 filed on 1st October, 1984.

Ante dated to 1st October, 1984.

Appropriate office for opposition proceedings (Rule 4, Patent Rules, 1972) Patent Office Branch, New Delhi-110005.

13 Claims

A process for flocculating and clarifying a solid-liquid slurry (as herein defined) by removing solids therefrom, comprising :

liberating incordensable gases from the slurry by passing the solid-liquid through an upper zone of a preflocculating vessel so as to flow turbulently therein;

transferring said slurry from said upper zone to a lower zone while changing the turbulent flow of said slurry to a laminar flow;

introducing a flocculating agent as herein described into said slurry in said lower zone such that solids of said slurry coagulate as flocs in said lower zone;

introducing the thus preflocculated slurry directly into a clarifier zone and below level of a mud bed formed of concentrated removed solids in said clarifier zone;

the liquid of said solid-liquid slurry percolating upwardly through said mud bed and being filtered thereby and allowing said flocs of solids to settle downwardly into and form said mud bed of concentrated removed solids, and removing said clarifier zone.

Complete specn. 19 pages

Drq. 2 sheets

NAME INDEXES OF APPLICATIONS FOR PATENTS FOR THE MONTH OF JUNE, 1989 (NOS. 419/CAL/89 TO 513/CAL/89, 143/BOM/89 TO 180/BOM/89, 428/MAS/89 TO 504/MAS/89, 481/DEL/89 TO 576/DEL/89.

Name & Appln. No.

A

Ab Idea.—449/Cal/89.

Abst, F.—517/Del/89.

Aerospatiale Societe Du Petrole.—444/Mas/89.

Aerospatiale Societe Nationale Industrielle.—443/Mas/89, 485/Del/89.

Alcan International Ltd.—513/Del/89.

Allegheny Ludlum Corporation.—542/Del/89, 543/Del/89.

Allied Signal Inc.—523/Del/89.

Alsthom.—493/Del/89.

Aluminium Pechiney.—490/Del/89, 456/Mas/89.

Amin, S. K.—160/Bom/89.

Amonia Casale S. A.—489/Mas/89.

Aneja, R. P.—475/Cal/89, 476/Cal/89.

Ardel International S.A.—488/Cal/89.

Asahi Denka Kogyo Kabushiki Kaisha.—504/Del/89.

ASEA Brown Roveri Ltd.—485/Mas/89.

Atocham.—457/Mas/89.

Audco India Ltd.—475/Mas/89.

Ausimont S.r.l.—443/Cal/89, 455/Cal/89, 456/Cal/89.

Australian Meat & Live-Stock Research & Development Corp.—467/Mas/89.

Avery International Corporation.—544/Del/89.

"B"

BP Chemicals Ltd.—508/Del/89, 537/Del/89.

B. V. Optische Industrie "Du Oudu Delft".—468/Cal/89.

Babcock & Wilcox Co., The.—512/Cal/89.

Baliga, S.R.—143/Bom/89.

Banerjee, S. N.—438/Cal/89.

Bapat, G. S.—153/Bom/89, 154/Bom/89.

Barmag AG.—147/Bom/89.

Bazante, G.—517/Del/89.

Belorussky Politekhicheskyy Institut.—435/Cal/89.

Bhalla, P. J.—174/Bom/89.

Bhavsar, H. L.—150/Bom/89.

Bhole, A.G.—159/Bom/89, 161/Bom/89.

Bhole, N. G. Dr.—452/Cal/89.

Biswas, J. N.—499/Cal/89.

Board of Governors of Wayne State University, The.—454/Mas/89.

<i>Name & Appln. No.</i>
Bohler Gesellschaft m.b.H.—487/Cal/89.
Bolen, R. J. Jr.—566/Del/89.
Border Inc.—420/Cal/89, 421/Cal/89, 422/Cal/89, 425/Cal/89.
Borushko-Gornyak, J. N.—484/Del/89.
Borutsky, P. N.—484/Del/89.
Bowthorpe-Hellormanz Ltd.—463/Cal/89.
Bunawerke Huls GMBH.—503/Mas/89.
Bursian, N. R.—484/Del/89.

"C"

C. R. Bard, Inc.—561/Del/89.
Cariel, L.—569/Del/89.
Caterpillar Inc.—438/Mas/89, 439/Mas/89.
Charegaonkar, A.—180/Bom/89.
Charles Stark Draper Laboratory Inc., The.—476/Mas/89.
Chemische Fabrik Stockhausen GmbH.—571/Del/89.
Chen, J. F.—442/Mas/89.
Clotteau, J-E.—494/Del/89.
Combustion Engineering, Inc.—432/Cal/89.
Combustion Engineering Inc.—504/Cal/89.
Communications Satellite Corporation.—441/Cal/89.
Compagnie Generale Des Etablissements Michelin-Michelin & Cie.—453/Mas/89.
Concord Research Corp.—477/Mas/89.
Contractor, P. N.—177/Bom/89.
Corning Incorporated.—498/Mas/89.
Cornet-Werke Heinrich Schlerf GmbH.—555/Del/89.
Council of Scientific & Industrial Research.—496/Del/89, 497/Del/89, 498/Del/89, 500/Del/89, 510/Del/89, 511/Del/89, 512/Del/89, 534/Del/89, 550/Del/89, 551/Del/89, 552/Del/89, 553/Del/89.
Crompton Greaves Ltd.—162/Bom/89.

"D"

Date, M.A., Dr.—166/Bom/89.
De Beers Industrial Diamond Division (Proprietary) Ltd.—527/Del/89.
De La Rue Giori S. A.—514/Del/89.
Deora, P. S.—171/Del/89.
Dorchester Enterprises Ltd.—447/Mas/89, 449/Mas/89.
Dow Chemical Co., The.—437/Mas/89, 471/Mas/89.
Du Pont Canada Inc.—442/Cal/89.
Dvorova, N. M.—484/Del/89.

"E"

E. I. Du pont De Nemours & Co.—442/Cal/89, 465/Cal/89, 466/Cal/89, 479/Cal/89, 480/Cal/89, 486/Cal/89, 501/Cal/89.
E. R. Squibb & Sons, Inc.—483/Del/89.
Ebersolt, M.—559/Del/89, 560/Del/89.
Essex Environmental Industries Inc.—530/Del/89.
Exxon Chemical Patents Inc.—525/Del/89.

*Name & Appln. No.***"F"**

Facet Enterprises, Inc.—423/Cal/89.
Foster Wheeler Energy Corp.—500/Cal/89.
First Tech.—511/Cal/89.
Fisher Controls International, Inc.—488/Mas/89.

"G"

GEC Plessey Telecommunications Ltd.—556/Del/89.
Gamkhar, D. K.—567/Del/89.
Garg, D. K.—489/Del/89.
Gersan Establishment.—472/Mas/89.
Ghosh, S. K.—471/Cal/89.
Goizper, S. Coop LTDA.—497/Cal/89.
Goodyear Tire & Rubber Co., The.—529/Del/89, 572/Del/89, 573/Del/89, 574/Del/89, 575/Del/89.
Goswami, T. K. Dr.—151/Bom/89, 152/Bom/89.
Goyal, R. N.—489/Del/89.
Graco Inc.—570/Del/89.
Gupta, A.—545/Del/89.

"H"

Haldor Topsee A/S.—495/Mas/89.
Hargem Ltd.—445/Cal/89.
Henkel Kommanditgesellschaft auf Aktien.—463/Mas/89.
Hindustan Antibiotics Ltd.—146/Bom/89.
Hindustan Lever Ltd.—148/Bom/89, 149/Bom/89, 155/Bom/89, 156/Bom/89, 164/Bom/89, 170/Bom/89.
Hitachi Construction Machinery Co. Ltd.—419/Cal/89, 503/Cal/89, 510/Cal/89.
Hitachi Ltd.—502/Cal/89.
Hoechst Aktiengesellschaft.—450/Cal/89, 472/Cal/89.
Hoechst India Ltd.—163/Bom/89.
Hoerbiger Ventilwerke Aktiengesellschaft.—424/Cal/89.
Hoogovens Grope B. V.—504/Mas/89.
Hoover Universal, Inc.—508/Cal/89.
Hoya Corporation.—491/Mas/89.

"I"

ICI Australia Operations Proprietary Ltd.—481/Del/89.
Imperial Chemical Industries PLC.—506/Del/89, 528/Del/89.
Impuls-Apparatebau Jaeger & Sohn GmbH Industriegebiet Pinache.—433/Cal/89.
Indian Institute of Science.—430/Mas/89, 431/Mas/89, 500/Mas/89.
Industrial Sales Co., (ISCO) A/S.—469/Cal/89.
Inland Steel Co.—497/Mas/89.
Institut De Recherches De La Siderurgie Francaise (IRSID)—484/Mas/89.
Institut Francais Du Petrole.—444/Mas/89, 460/Mas/89, 461/Mas/89.
Intel Gasgards (P) Ltd.—549/Del/89.
International Business Machines Corporation.—521/Del/89, 522/Del/89, 558/Del/89.
Italfarmaco S. P. A.—435/Mas/89.

Name & Appln. No.	Name & Appln. No.
"J"	Moskovsky Geologorazvedochny Institut Imeni Sergo Ordzhonikidze.—446/Cal/89. Motorola, Inc.—505/Del/89, 562/Del/89. Mukherjee, C. R.—459/Cal/89.
"K"	"N"
KSB Pumps Ltd.—169/Bom/89. Kabelschlapp GmbH.—157/Bom/89. Kabushiki Kaisha Toshiba.—441/Mas/89. Kelsey-Hayes Company.—494/Cal/89. Kirloskar Pneumatic Co. Ltd.—179/Bom/89. Kone Elevator GmbH.—453/Cal/89, 462/Cal/89, 470/Cal/89. Krupp Koppers GmbH.—426/Cal/89, 427/Cal/89. Krupp Widia GmbH.—451/Cal/89. Kurihara, Y.—504/Del/89.	Ngk Insulators, Ltd.—491/Cal/89. Nabisco Brands, Inc.—434/Cal/89. Nalge Co.—548/Del/89. National Council of Cement & Building Material.—499/Del/89. National Dairy Development Board.—475/Cal/89, 476/Cal/89. National Institute of Immunology.—554/Del/89. Nene, V. R.—540/Del/89. Norsolor.—448/Cal/89. Norton Co.—444/Cal/89.
"L"	"O"
Latvinskaya Selskokhozyaistvennaya Akademia.—437/Cal/89, 546/Del/89, 547/Del/89. Lee, N.—464/Mas/89. Leningradsky Institut Technoi Mekhaniki I Optiki.—464/Cal/89. Lowan (Management) Pty. Ltd.—482/Del/89. Lubrizol Corporation, The.—486/Del/89, 509/Del/89, 519/Del/89, 524/Del/89, 535/Del/89. Lucas Industries Public Ltd., Co.—469/Mas/89.	Ole-Bendt Rasmussen.—487/Mas/89. Opti Patent—, Forschungs-Und Fabrikations-AG.—484/Cal/89, 485/Cal/89. Oy, N.—429/Cal/89. Oy Sekko Ab.—505/Cal/89.
"M"	"P"
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The following design have been registered. They are not open to inspection for a period of two years from the date of registration except as provided for in Section 50 of the Design Act, 1911.

The date shown in the each entry is the date of registration of the design included in the entry.

Class 1. No. 161527. Navinbhai Dayabhai Kavaiya, Indian national, trading as Echo Tech Steels, Dhebarbhai Road (South), Behind Dhebar Colony, Rajkot-360 002 (Gujarat), India, an Indian Proprietorship concern. "Rolling Shutter". 13th October, 1989.

Class 1. No. 161561. Dynabook Technologies Corporation, a corporation organised under the laws of Delaware, 4165 Thousand Oaks Boulevard Suite 101, Westlake Village, California, 91362-3629. USA. "Portable Personal Computer". 24th October, 1989.

Class 1. No. 161874. Lakshmi Kanta Ghosh, Borokalitola, Chandernagore, Hooghly, W.B. India, Pin 712136, Indian National. "Slingshot for game". 9th February, 1990.

Class 3. No. 161540. Melmoking, 13/24, East Patel Nagar, New Delhi-110 008, India, an Indian Partnership concern. "Dinner Plate". 18th October, 1989.

Class 3. No. 161645. Interlego A.G., a Swiss Company of Sihlbruggstrasse 3, CH-6340 Baar, Switzerland. 3, CH-6340 Baar, Switzerland. "a TOY Building Element". 29th November, 1989.

Class 3. Nos. 161723 & 161724. N. V. PHILIPS 'GLOEI-LAMPENFABRIEKEN', a limited liability Company organized and established under the laws of the Kingdom of the Netherlands, carrying on business as Manufacturers at Groenewoudseweg 1, Eindhoven, The Netherlands. "a Mobile Radio Apparatus". 20th December, 1989.

Class 3. No. 161832. Shri Warana Sahakari Dudh Utpadak Prakriya Sangh Ltd., (a Company incorporated under the Indian Companies Act), whose address is Amrutanagar Post-Varananagar, Dist-Kolhapur, Maharashtra, India. a "Container". 29th January, 1990.

Class 3. No. 161829. Richi Rich Products, A-18, Ram House, Middle Circle, Connaught Place, New Delhi-110 001, India and Indian Sole Proprietorship concern. "TOY". 24th January, 1990.

Class 3. No. 161835. Richi Rich Products, A-18, Ram House, Middle Circle, Connaught Place, New Delhi-110 001, India and Indian Sole Proprietorship concern. "TOY". 29th January, 1990.

Class 3 No. 161875. Lakshmi Kanta Ghosh, Borokalitola, Chandernagore, Hooghly, W.B. India, Pin 712136 Indian National. "Sligshot for game". 9th February, 1990.

Class 12 No. 161544. R & C Products Pty. Ltd., a company incorporated under the laws of the Australian Capital Territory, Commonwealth of Australia, of 33 Hope Street, Ermington, New South Wales, Australia, manufacturers. "Cistern Dispenser Block". Reciprocity date is 28th April, 1989 (Australia).

Class 12. Nos. 161825 & 826. Richi Rich Products, A-18, Ram House, Middle Circle, Connaught Place, New Delhi-110 001, India and Indian Sole Proprietorship concern. "TOY". 24th January, 1990.

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Nos. 155510, 155487, 156107, 158179, 157646, 155693.
Class-3.

No. 155488.—Class-4.

Nos. 161273, 161274.—Class-12.

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Nos. 158179, 157646.—Class-3.

Nos. 161273, 161274.—Class-12.

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